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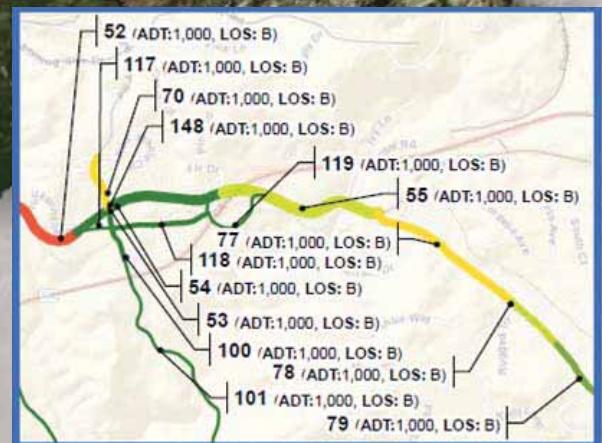
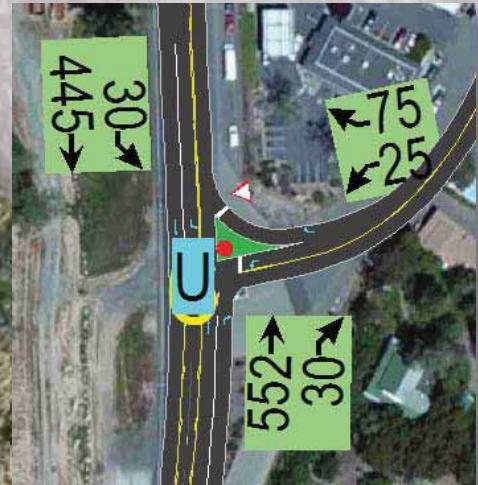
Traffic Study





TUOLUMNE COUNTY GENERAL PLAN AND REGIONAL TRANSPORTATION PLAN UPDATE

EIR Traffic Study



August 2015

TUOLUMNE COUNTY GENERAL PLAN AND REGIONAL TRANSPORTATION PLAN UPDATE

ENVIRONMENTAL IMPACT REPORT TRAFFIC STUDY

FINAL REPORT

**Prepared For:
Tuolumne County Transportation Council**

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- Level of Service Worksheets
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EXECUTIVE SUMMARY

This technical report has been prepared in order to present the results of an Environmental Impact Report (EIR) Traffic Study completed by Wood Rodgers, Inc. in support of the proposed Tuolumne County General Plan (GP) and Regional Transportation Plan (RTP) update EIR documents. The analyses contained in this traffic study essentially focus on quantifying traffic operating conditions at study intersections and roadway segments under various scenarios/alternatives, including existing conditions, year 2030 alternative growth scenarios, and year 2040 alternative growth scenarios. Additionally, parts of the Tuolumne County Transportation Council's (TCTC's) Roadway Average Daily Traffic (ADT) Level of Service (LOS) Lookup Table was updated as a part of this EIR traffic study effort.

Based on collaboration with TCTC, 41 intersections and 150 roadway segments throughout the County were selected for analysis. These critical locations include both County and Caltrans facilities throughout the County's transportation network. TCTC and Wood Rodgers recently completed new AM and PM peak hour turning movement and Average Daily Traffic (ADT) count data collection at several study intersections and roadways. The new traffic counts were supplemented with traffic counts collected as part of prior studies prepared for Tuolumne County as well Caltrans traffic volumes published on the Caltrans website. A minimum acceptable LOS standard of LOS "D" was used in this study for all County and Caltrans facilities besides local roads, which have a LOS "C" standard.

The Traffic Study Report is a planning level analysis that quantifies existing and future traffic conditions with proposed improvements. The forecasted LOS traffic impacts and associated improvements will be reconsidered on a project by project basis with a thorough operational analysis.

Existing Conditions:

11 of the 41 study intersections are currently operating below acceptable peak hour LOS standards. The remaining unsignalized and signalized study intersections are currently operating at acceptable LOS criteria under the existing AM and PM peak hour conditions.

Seven (7) of the 150 study roadway segments are currently operating below acceptable LOS conditions. The remaining roadway segments are currently operating at acceptable LOS criteria under the existing ADT conditions.

Alternative Growth Scenarios:

Future year conditions were analyzed under four alternative growth scenarios that represent different ways growth can be concentrated and distributed in Tuolumne County:

Distinctive Communities (Proposed): *Within the Distinctive Communities Alternative Growth Scenario, each community contains a well-defined, cohesive, and compact community built around an appropriately-scaled urban core and community gathering places. By having compact communities, auto dependency is greatly reduced and walking, bicycling, and transit use becomes an increasing form of transportation.*

Public Services (Proposed): *In the Public Services Alternative Growth Scenario, growth is located where multiple services, such as major transportation corridors, transit lines, and public water and sewer, are located. Development will continue to grow within defined communities, however development will radiate outward along a select number of arterials, major collectors, and transit corridors where public water and sewer exist, creating linear communities containing a mix of multi-family housing, townhouses, neighborhood commercial and traditional neighborhoods.*

Recent Trends (Existing): *The Recent Trends Scenario is based on the existing City's and County's General Plan land use designations and assumes no change in market demand for housing types. This scenario continues the existing pattern of development, in which Residential Medium (Single-Family*

Residential, R-1, District) is the primary demand choice for residential development.

Recent Trends (Proposed): *The Recent Trends Scenario is based on the proposed City's and County's General Plan land use designations and assumes no change in market demand for housing types. This scenario continues the existing pattern of development, in which Residential Medium (Single-Family Residential, R-1, District) is the primary demand choice for residential development.*

Year 2030 Conditions:

A number of Tier 1b and capital improvement projects are assumed to be constructed by year 2030 conditions.

A total of five (5) intersections are projected to operate below acceptable peak hour LOS standards under year 2030 AM and/or PM peak hour conditions under at least three alternative growth scenarios. All alternative growth scenarios are projected to have similar intersection operations. 13 total intersections are projected to meet California MUTCD based traffic signal Peak Hour Warrant 3 under year 2030 AM and/or PM peak hour conditions under all alternative growth scenarios (with one exception). All other study intersections are projected to operate at acceptable year 2030 AM and PM peak hour LOS or better conditions under all four alternative growth scenarios.

A total of five (5) roadway segments are projected to operate below acceptable LOS standards under Year 2030 ADT conditions under most or all alternative growth scenarios. All alternative growth scenarios are projected to have similar intersection operations. The remaining roadway segments are projected to operate at acceptable LOS or better criteria under year 2030 ADT conditions under all four alternative growth scenarios.

Year 2040 Conditions:

A number of long-term capital improvement projects are assumed to be complete by year 2040 conditions in addition to those improvements assumed complete by year 2030.

A total of five (5) intersections are projected to operate below acceptable peak hour LOS standards under year 2040 AM and/or PM peak hour conditions under at least one alternative growth scenario. All alternative growth scenarios are projected to have similar intersection operations. 12 total intersections are projected to meet California MUTCD based traffic signal Peak Hour Warrant 3 under year 2040 AM and/or PM peak hour conditions under all alternative growth scenarios. All other study intersections are projected to operate at acceptable year 2040 AM and PM peak hour LOS or better conditions under all four alternative growth scenarios.

A total of seven (7) roadway segments are projected to operate below acceptable LOS standards under Year 2030 ADT conditions under at least one alternative growth scenario. All alternative growth scenarios are projected to have similar intersection operations. The remaining roadway segments are projected to operate at acceptable LOS or better criteria under year 2040 ADT conditions under all four alternative growth scenarios.

Impacts and Mitigation Measures:

This report summarizes future year traffic impacts, their significance on critical study area transportation facilities, and recommended improvements and mitigation measures to alleviate those impacts to acceptable levels under year 2030 and 2040 conditions. With the recommended intersection and roadway improvements described in this report, all study facilities are projected to operate at acceptable year 2030 or 2040 AM and PM peak hour LOS conditions under all alternative growth scenarios.

Vehicle Miles Traveled (VMT): The Distinctive Communities (Proposed) scenario is projected to produce the least VMT overall, while the Recent Trends (Existing) and Public Services (Proposed) scenarios are projected to produce slightly higher VMT under year 2030 and 2040 conditions, respectively.

CHAPTER 1 – INTRODUCTION

STUDY AREA

Tuolumne County (County) is located along the western slope of the Sierra Nevada mountain range and is bordered on the north by Calaveras County, on the south by Mariposa County, on the west by Stanislaus County, and on the east by Mono and Alpine Counties. The County is largely rural with a population of approximately 54,000 and includes several census-designated places and unincorporated communities. The only incorporated city in the County is the City of Sonora. State Routes 49, 108, and 120 are the main highways that serve Tuolumne County. The Tuolumne County regional vicinity map is illustrated in **Figure 1**.

BACKGROUND

The Tuolumne County General Plan (GP) and Regional Transportation Plan (RTP) outline the long-term growth and development of Tuolumne County. Tuolumne County Transportation Council (TCTC) is currently in the process of updating their Regional Transportation Plan and Tuolumne County Community Resources Agency (CRA) is concurrently preparing a Countywide General Plan Update. The current Tuolumne County General Plan was adopted in 1996 and projected a population of 97,100 residents by the year 2020. The Tuolumne County RTP was last updated in 2005. The proposed updates to the General Plan and RTP will be based on a population projection of 63,243 residents by the year 2040. Subsequent to these updates, TCTC also anticipates completion of a comprehensive update to their Regional Transportation Impact Fee (RTIF) program.

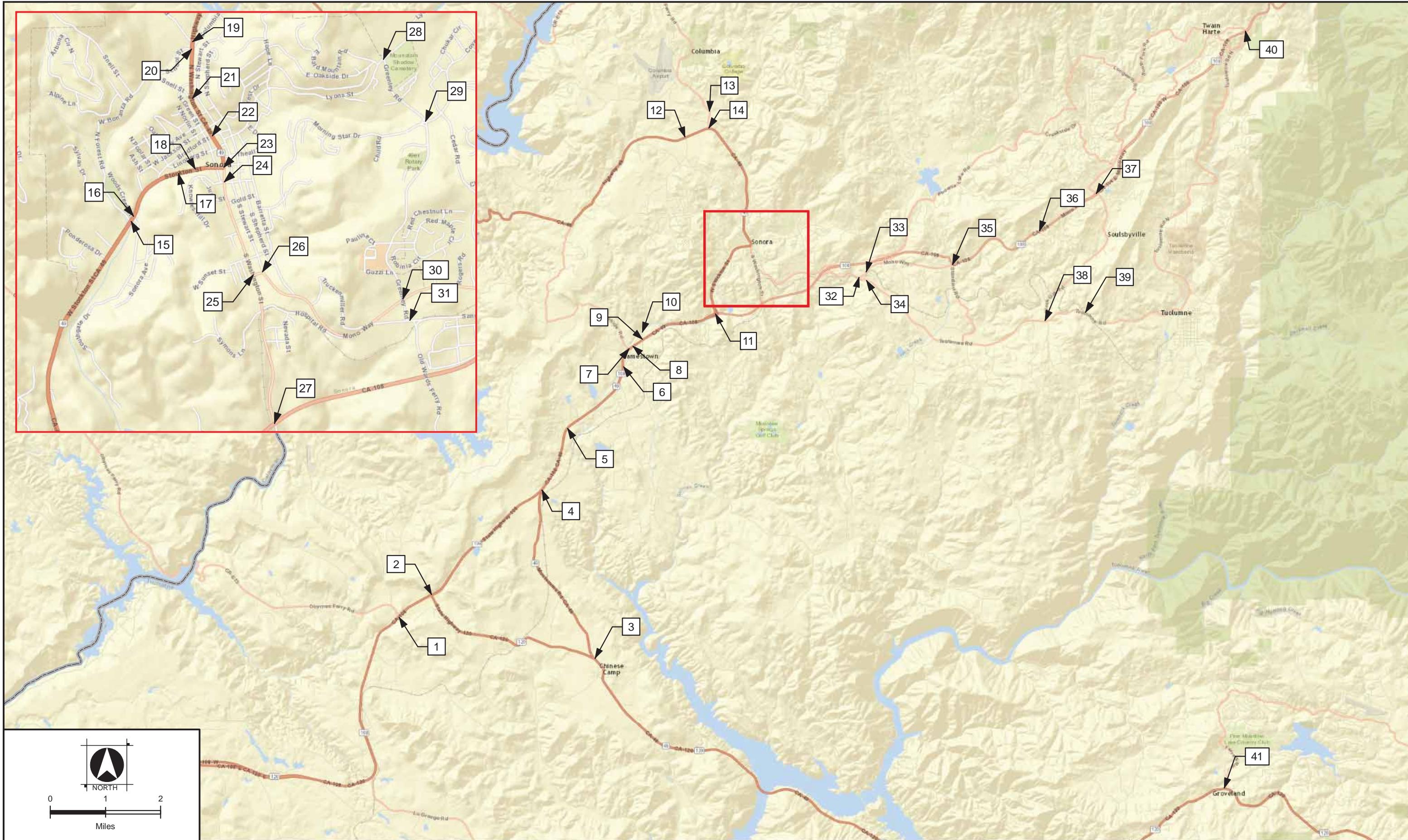
At the present time, Tuolumne County and TCTC have initiated the preparation of two Environmental Impact Reports (EIRs), one for the General Plan update and one for the RTP update. The two EIR documents require the preparation of CEQA-compliant technical Traffic Studies in support of their corresponding Transportation/Circulation chapters. While separate EIR documents are being prepared for the updated General Plan and RTP, the supporting Traffic Studies would contain mostly identical/overlapping content; therefore, it was decided that a single traffic study should be prepared in support of both EIRs. This technical report has been prepared in order to present the results of an EIR Traffic Study completed by Wood Rodgers in support of the proposed General Plan and RTP update EIR documents.

REPORT ORGANIZATION

This traffic study has been prepared consistent with CEQA requirements for the General Plan and RTP EIR Transportation/Circulation chapters, as well as structured to meet and address County and Caltrans traffic study guidelines. The analyses contained in this traffic study essentially focus on quantifying traffic operating conditions at study intersections and roadway segments (as identified by TCTC staff) under various scenarios/alternatives, including existing conditions, year 2030 alternative growth scenarios, and year 2040 alternative growth scenarios. This traffic study identifies transportation impacts and recommended improvements resulting from planning horizon years (2030 and 2040) traffic volume demands anticipated under the four alternative growth scenarios.

This report is organized into the chapters listed below:

- Chapter 1 – Introduction and Background
- Chapter 2 – Existing Conditions Analysis
 - A description of existing transportation/circulation setting and critical facilities within and through the County.
 - Analysis of existing traffic operating conditions.
- Chapter 3 – Alternative Growth Scenarios
 - A description of the four Alternative Growth Scenario conditions analyzed in this traffic study.
- Chapter 4 – Future Conditions Analysis
 - A description of the proposed alternative growth scenarios to be analyzed.
 - A description of planned future roadway improvements.
 - Analysis of traffic operations under year 2030 alternative growth scenarios.
 - Analysis of traffic operations under year 2040 alternative growth scenarios.
- Chapter 5 – Recommended Improvements and Mitigation Measures
 - A discussion of significance of project impacts for critical local and regional transportation facilities.
 - Recommendations on future year transportation improvements and mitigation measures/strategies needed under each alternative growth scenario.
 - Analysis of roadway safety including existing crash data on state highway facilities.
 - Analysis of estimated future year Vehicle Miles Traveled (VMT) under the alternative growth scenarios.



Study Area Vicinity Map and Study Intersection Locations
Tuolumne County EIR Traffic Study

Figure 1

CHAPTER 2 – EXISTING CONDITIONS ANALYSIS

A. EXISTING TRANSPORTATION SETTING

Roadways that currently provide primary circulation in/through Tuolumne County are described as follows:

State Route 49 (SR 49) is a north-south state highway that traverses the eastern portion of northern California from Madera County to Plumas County. SR 49 extends through the western and most populated portion of Tuolumne County, linking the communities of Moccasin, Chinese Camp, Jamestown, Tuttletown, and the City of Sonora. SR 49 runs concurrent with SR 120 between the communities of Moccasin and Chinese Camp and runs concurrent with SR 108 through Jamestown. SR 49 runs directly through downtown Sonora and serves as the main street through northern half of the city. SR 49 is generally a two-lane highway throughout the County.

State Route 108 (SR 108) is a state highway that runs northeast from the city of Modesto in the California Central Valley to US Route 395 in Mono County. SR 108 runs concurrent with SR 49 and SR 120 near Jamestown and the City of Sonora in Tuolumne County. Throughout the County, SR 108 is generally a two-lane highway, with four-lane divided segments in more mountainous areas. SR 108 provides the City of Sonora with an important link to the Central Valley as well as to smaller communities in the eastern portion of the County.

State Route 120 (SR 120) is an east-west state highway in Northern California that runs from San Joaquin County to US Route 6 in Mono County. In Tuolumne County, SR 120 runs concurrent with SR 49 near Chinese Camp, and with SR 108 from Yosemite Junction to the western County line. SR 120 has a route break in Tuolumne County when it reaches Yosemite National Park; thereafter, the route becomes a park service road under the jurisdiction of the National Park Service. In Tuolumne County, SR 120 alternates between a two-lane expressway and a two-lane conventional highway.

EXISTING PEDESTRIAN, BICYCLE, AND TRANSIT FACILITIES

The steep terrain and rural setting of Tuolumne County has limited the number of pedestrian and bicycle facilities in the County. Typical sidewalks exist intermittently along business fronts in community centers and a designated bicycle path fronts the Crossroads Shopping Center in Sonora. The *Tuolumne County Transportation Council Bikeways and Trails Plan* notes that construction of Class I and Class II bicycle facilities is encouraged to allow for bicycle and pedestrian safety.

Tuolumne County is served by Tuolumne County Transit, which includes a Monday-Friday fixed route service, dial-a-ride service Monday-Saturday, and a seasonal SkiBUS service to winter destinations. Tuolumne County Transit also provides connections to Yosemite Area Regional Transportation Systems (YARTS), a service that delivers access to popular destinations within the Yosemite Valley.

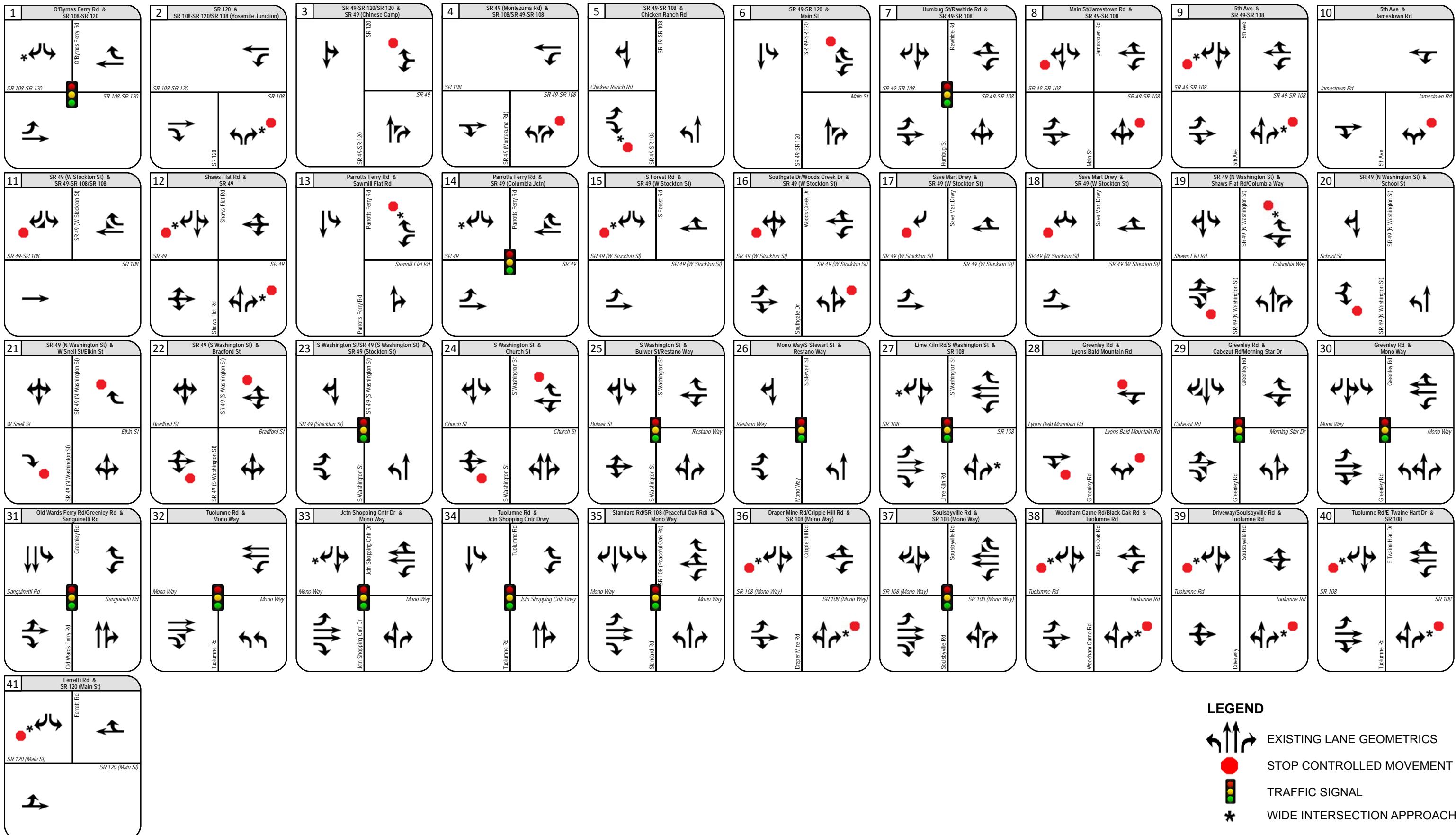
STUDY AREA FACILITIES

Based on direction from TCTC, 41 intersections and 150 roadway segments throughout the County were selected for analysis. These critical locations include both County and Caltrans facilities throughout the County's roadway network. Study area intersections are listed in **Appendix Table 1** and study area roadway segments are listed in **Appendix Table 2**. Existing intersection locations are shown in **Figure 1** and existing lane geometrics and control are shown in **Figure 2**.

EXISTING TRAFFIC COUNTS

TCTC and Wood Rodgers recently completed new AM and PM peak hour traffic count data collection at several study intersections and roadways. The new traffic counts were supplemented with traffic counts collected as part of prior studies prepared for Tuolumne County as well Caltrans traffic volumes published on the Caltrans website. The AM peak hour is defined as the highest one hour of traffic flow counted between 7:00 AM and 9:00 AM on a typical weekday while the PM peak hour is defined as the highest one hour of traffic flow counted between 4:00 PM and 6:00 PM on a typical weekday. “Existing” conditions study intersection AM and PM peak hour traffic volumes are shown in **Appendix Figure 2**. Existing conditions study roadway segment Annual Average Daily Traffic (AADT) volumes are shown in **Appendix Table 4**.

Note: this study does not include seasonal analysis (peak summer month) impacts and mitigation measures.



Year 2015 Existing - Intersection Lane Geometrics and Control

Tuolumne County EIR Traffic Study

Figure 2

LEVEL-OF-SERVICE METHODOLOGY

Traffic operations have been quantified through the determination of "Level of Service" (LOS). Level of Service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment, representing progressively worsening traffic operations.

Levels of Service have been calculated for all intersection control types using methods documented in the Transportation Research Board (TRB) Publication *Highway Capacity Manual, 2010* (HCM-2010). For two-way-stop-controlled (TWSC) intersections, the "worst-case" movement delays and LOS have been reported, computed based on HCM-2010. For signalized and all-way-stop-controlled (AWSC) intersections, the intersection delays and LOS reported are the average values for the whole intersection, computed based on HCM-2010. *Synchro/SimTraffic 8* software was used for LOS calculations for unsignalized and signalized intersections. The delay-based HCM-2010 LOS criteria for different types of intersection controls are outlined in **Table 1**.

Table 1. Level of Service Definitions and Criteria for Intersections

Level of Service	Flow Type	Operational Characteristics	Intersection Control Delay (seconds/vehicle)	
			Signal Control	2-Way-Stop or All-Way Stop Control
"A"	Stable Flow	Free-flow conditions with negligible to minimal delays. Excellent progression with most vehicles arriving during the green phase and not having to stop at all. Nearly all drivers find freedom of operation.	≤ 10	0 – 10
"B"	Stable Flow	Good progression with slight delays. Short cycle-lengths typical. Relatively more vehicles stop than under LOS "A". Vehicle platoons are formed. Drivers begin to feel somewhat restricted within groups of vehicles.	> 10 – 20	> 10 – 15
"C"	Stable Flow	Relatively higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, although many still pass through without stopping. Most drivers feel somewhat restricted.	> 20 – 35	> 15 – 25
"D"	Approaching Unstable Flow	Somewhat congested conditions. Longer but tolerable delays may result from unfavorable progression, long cycle lengths, and/or high volume-to-capacity ratios. Many vehicles are stopped. Individual cycle failures may be noticeable. Drivers feel restricted during short periods due to temporary back-ups.	> 35 – 55	> 25 – 35
"E"	Unstable Flow	Congested conditions. Significant delays result from poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures occur frequently. There are typically long queues of vehicles waiting upstream of the intersection. Driver maneuverability is very restricted.	> 55 – 80	> 35 – 50
"F"	Forced Flow	Jammed or grid-lock type operating conditions. Generally considered to be unacceptable for most drivers. Zero or very poor progression, with over-saturation or high volume-to-capacity ratios. Several individual cycle failures occur. Queue spillovers from other locations restrict or prevent movement.	> 80	> 50

Source: HCM-2000/2010, Exhibits 16-2, 17-2 and 17-22

The field-observed "peak hour factors" from the actual traffic counts were utilized (where available) to evaluate existing conditions' LOS. Heavy vehicle percentages of 2-10% for State highways (obtained from Caltrans website) and 2% for local roadways were generally used in this analysis.

Generally, the HCM-2010 recommended suburban traffic default signal cycle length of 90-120 seconds was used, with 4 seconds of "lost time" per critical signal phase.

Some of TCTC's Roadway ADT LOS Lookup Table was updated as a part of this EIR traffic study. New generalized estimates of maximum two-way ADT volume carrying capacities for each LOS designation (A-F) were calculated using HCM 2010 based *High Plan 2012* software for the five urban roadway types listed below:

- 2-lane Principle/Minor Arterial roadways (*with* left turn lanes)
- 2-lane Principle/Minor Arterial roadways (*no* left turn lanes)
- 2-lane Major/Minor Collector roadways (*with* left turn lanes)
- 2-lane Major/Minor Collector roadways (*no* left turn lanes)
- 2-lane Local Streets

The updated TCTC Roadway ADT LOS Lookup Table is shown in **Table 2**.

All study roadways were classified as urban or rural, and all rural roadways were further classified as rolling or mountainous. **Appendix Figure 1** illustrates the Tuolumne County Urban Area Boundaries. Roadway segment LOS was calculated by comparing study roadway Average Daily Traffic (ADT) volumes, obtained from recent traffic counts, recently completed traffic studies, and the most recent Caltrans count book, to the updated Tuolumne County Roadway ADT LOS thresholds.

Based on direction from County Staff, the minimum LOS standard for Minor Collectors, Major Collectors, Rural Arterials and Urban Streets (County facilities) shall be LOS "D", unless an exception is made by the County. The minimum LOS standard for local and residential roads shall be LOS "C". The minimum peak hour LOS standard for all County intersections shall be LOS "D".

The Project study area includes State Routes 49, 108, and 120. The Caltrans published *Guide for the Preparation of Traffic Impact Studies* (dated December 2002) states the following:

"Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS".

Based on direction from Caltrans and County staff, the minimum LOS standard for all Caltrans facilities (roadways and intersections) shall be LOS "D".

In order to determine whether "significance" should be associated with unsignalized intersection operating conditions, supplemental traffic signal warrant analyses were also completed. The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the need for installation of a traffic signal at an unsignalized intersection location. This study generally employs signal warrant criteria presented in the *California Manual on Uniform Traffic Control Devices* (California MUTCD, last updated January 2012). The California MUTCD signal warrant criteria are based upon several factors including volume of vehicular and pedestrian traffic, location of school areas, frequency of accidents, etc. The peak-hour-volume warrant 3 (urban/rural areas) analysis was completed in this study as a representative warrant analysis. California MUTCD indicates that "the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal."

Table 2. TCTC Generalized Roadway ADT LOS Lookup Table

FHWA FC#	Roadway Type	Type #	Area Type	Maximum Two-way Average Daily Traffic (ADT) Volume-carrying Capacity for each LOS Designation				
				LOS "A"	LOS "B"	LOS "C"	LOS "D"	LOS "E"
4	Rural Arterial (4-lane) Divided	1	ROLLING	6,240	12,480	18,720	26,520	31,200
4	Rural Arterial (4-lane) Undivided	2		4,820	9,640	14,460	20,485	24,100
4	Rural Minor Arterial (4-lane)	3		6,080	12,160	18,240	25,840	30,400
4	Rural Minor Arterial (with left-turn Lane)	4		4,600	9,200	13,800	19,550	23,000
4	Rural Minor Arterial (2-lane)	5		3,120	6,240	9,360	13,260	15,600
5	Major Collector (34 ft. - 36 ft.)	6		3,420	6,840	10,260	14,535	17,100
5	Major/Minor Collector (23 ft. - 32 ft.)	7		2,900	5,800	8,700	12,325	14,500
5	Major/Minor Collector (20 ft.- 23 ft.)	8		2,590	5,180	7,770	11,008	12,950
5	Major/Minor Collector (18 ft.- 20 ft.)	9		2,300	4,600	6,900	9,775	11,500
5	Major/Minor Collector (Less than 18 ft.)	10		1,920	3,840	5,760	8,160	9,600
6	Local Road	11		1,920	3,840	5,760	8,160	9,600
4	Rural Arterial (4-lane) Divided	101	MOUNTAINOUS	5,810	11,610	17,410	24,670	29,020
4	Rural Arterial (4-lane) Undivided	102		4,490	8,970	13,450	19,060	22,420
4	Rural Minor Arterial (4-lane)	103		5,660	11,310	16,970	24,040	28,280
4	Rural Minor Arterial (with left-turn Lane)	104		4,280	8,560	12,840	18,190	21,390
4	Rural Minor Arterial (2-lane)	105		2,910	5,810	8,710	12,340	14,510
5	Major Collector (34 ft. - 36 ft.)	106		3,190	6,370	9,550	13,520	15,910
5	Major/Minor Collector (23 ft. - 32 ft.)	107		2,700	5,400	8,100	11,470	13,490
5	Major/Minor Collector (20 ft.- 23 ft.)	108		2,410	4,820	7,230	10,240	12,050
5	Major/Minor Collector (18 ft.- 20 ft.)	109		2,140	4,280	6,420	9,100	10,700
5	Major/Minor Collector (Less than 18 ft.)	110		1,790	3,580	5,360	7,590	8,930
6	Local Road	111		1,790	3,580	5,360	7,590	8,930
2	4-Lane Freeway	201	URBAN	28,000	43,200	61,600	74,400	80,000
2	3-Lane Freeway	202		10,100	20,200	30,300	42,925	50,500
2	2-Lane Freeway + Auxiliary Lanes	203		8,392	16,784	25,176	35,666	41,960
2	2-Lane Freeway	204		6,680	13,360	20,040	28,390	33,400
2	4-Lane Expressway	205		24,000	28,000	32,000	36,000	40,000
2	2-Lane Expressway	206		12,000	14,000	16,000	18,000	20,000
3	6-Lane Divided Arterial (with left-turn lane)	207		32,000	38,000	43,000	49,000	54,000
3	4-Lane Divided Arterial (with left-turn lane)	208		22,000	25,000	29,000	32,500	36,000
3	4-Lane Undivided Arterial (no left-turn lane)	209		18,000	21,000	24,000	27,000	30,000
4	2-Lane Principal/Minor Arterial (with left-turn lane)	210		2,900	7,700	14,300	20,100	31,300
4	2-Lane Principal/Minor Arterial (no left-turn lane)	211		2,900	7,200	11,900	16,100	24,200
5	2-Lane Major/Minor Collector (with left-turn lane)	212		3,400	6,900	11,600	15,800	29,400
5	2-Lane Major/Minor Collector (no left-turn lane)	213		2,700	5,600	9,200	12,800	23,500
6	2-Lane Local Street	214		2,300	4,900	8,400	11,400	21,200

Notes:

1. Values shown corresponding to LOS A through E are roadway ADT traffic volumes
 2. Collector width is measured from the edge of pavement to the edge of pavement
 3. Roadways with continuous grade steeper than 6% or above 4,000 ft. elevation should use mountainous train LOS thresholds
 4. Site Specific LOS maybe necessary
 5. Peak Hour LOS threshold is assumed to be 10% of the daily traffic volume unless site specific analysis shows a different peak hour to daily traffic ratio
 6. Examples LOS A (0.20 of capacity), LOS B (0.21 to 0.40 of capacity), LOS C (0.41 to 0.60 of capacity), LOS D (0.61 to 0.85 of capacity), LOS E (0.86 to 0.92 of capacity)
- All volumes thresholds are approximate and assumes average roadway characteristics. Actual threshold volume for each Level of Service listed above may vary depending on a variety of factors including (but not limited to) roadway curvature and grade, intersection or interchange spacing, driveway spacing, percentage of trucks, RVs and other heavy vehicles, travel lane widths, speed limits, signal timing characteristics, on-street parking, volume of cross traffic and pedestrians, etc.

B. EXISTING CONDITIONS' TRAFFIC OPERATIONS

INTERSECTIONS

Appendix Table 3 summarizes Existing traffic intersection operations, quantified using the existing traffic volumes (shown on **Appendix Figure 2**) and existing intersection lane geometrics and control (shown on **Figure 2**). **Table 3** shows the existing intersections that are currently operating below the minimum LOS criteria under the existing AM and/or PM peak hour conditions.

Table 3. Existing Intersections with Unacceptable Peak Hour LOS

#	Intersection	Control Type	LOS Std.	AM Peak Hour		PM Peak Hour	
				Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
5	SR 49-SR 108 & Chicken Ranch Rd	TWSC	D	24.5	C	47.2	E
8	Main St/Jamestown Rd & SR 49-SR 108	TWSC	D	93.5	F	125.1	F
9	5 th Ave & SR 49-SR 108	TWSC	D	232.2	F	429.6	F
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	TWSC	D	36.9	E	69.6	F
13	Parrotts Ferry Rd & Sawmill Flat Rd	TWSC	D	41.0	E	54.3	F
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	D	134.4	F	160.5	F
20	SR 49 (N Washington St) & School St	TWSC	D	43.5	E	44.1	E
23	S Washington St/SR 49 (N Washington St) & SR 49 (Stockton Rd)	Signal	D	63.1	E	58.1	E
24	S Washington St & Church St	TWSC	D	64.1	F	101.4	F
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	TWSC	D	43.0	E	28.9	D
39	Tuolumne Rd & Soulsbyville Rd	TWSC	D	52.9	F	23.7	C

Notes:

1. TWSC = Two-Way-Stop Control, AWSC = All-Way-Stop Control
2. For TWSC intersection, worst-case movement delays (in seconds/vehicle) is indicated. "Average" control delays (in seconds/vehicle) are indicated for AWSC and signal-controlled intersections. Delays reported in above table are from Synchro 8 software.
3. Bold numbers and letters represent condition where intersection does not meet minimum acceptable standards.

As shown in **Table 3**, 11 of the 41 study intersections are currently operating below acceptable peak hour LOS standards. The remaining unsignalized and signalized study intersections are currently operating at acceptable LOS criteria under the existing AM and PM peak hour conditions.

All unsignalized intersections projected to meet signal warrants under Existing AM and PM peak hour conditions are shown in **Table 4**.

Table 4. Existing Intersections that Meet Signal Warrants

#	Intersection	Control Type	AM Peak Hour	PM Peak Hour
			Warrant Met?	Warrant Met?
2	SR 120 & SR 108-SR 120/SR 108	TWSC	NO	YES
4	SR 49 (Montezuma Rd) & SR 120/SR 49-SR 120	TWSC	YES	YES
5	SR 49-SR 108 & Chicken Ranch Rd	TWSC	NO	YES
6	SR 49-SR 108 & Main St	TWSC	YES	YES
8	Main St/Jamestown Rd & SR 49-SR 108	TWSC	YES	YES
9	5th Ave & SR 49-SR 108	TWSC	YES	YES
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	TWSC	YES	YES
13	Parrotts Ferry Rd & Sawmill Flat Rd	TWSC	YES	YES
18	SR 49 (Stockton Rd) & E. Savemart Drwy	TWSC	NO	YES
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	YES	YES
21	SR 49 (N Washington St) & W Snell St/Elkin St	TWSC	YES	YES
24	S Washington St & Church St	TWSC	NO	YES
28	Greenly Rd & Lyons Bald Mountain Rd	TWSC	NO	YES
37	Soulsbyville Rd & SR 108 (Mono Way)	TWSC	YES	YES
39	Tuolumne Rd & Soulsbyville Rd	TWSC	YES	NO

Notes: Warrant = California MUTCD 2012 based Peak-hour-Volume Warrant #3 (70% Factor).

As shown in **Table 4**, California MUTCD based traffic signal Peak Hour Warrant 3 (70% -Factor) is projected to be met at 15 unsignalized study intersections under Existing AM and/or PM peak hour conditions.

The *Synchro* based LOS outputs and California MUTCD based Traffic Signal Peak hour Warrant 3 (70% Factor) worksheets for existing conditions are included in **Appendix Attachments 1 and 2**, respectively.

All improvements and mitigation measures are discussed in a subsequent section of this report.

ROADWAY SEGMENTS

Similar to minimum acceptable intersection LOS, a minimum acceptable LOS standard of either LOS “C”, for all local roads, or LOS “D”, for all remaining County and Caltrans facilities, is used in this report. **Appendix Table 4** and **Appendix Figure 11** illustrate “Existing” Roadway ADT operations quantified under existing roadway functional classifications and existing ADT volumes. **Table 5** shows the existing roadway segments that are currently operating below the minimum LOS criteria under ADT conditions.

Table 5. Existing Roadways with Unacceptable LOS

#	Roadway Segment	Type #	LOS Std.	AADT	LOS
24	SR 49 b/w Bell Mooney Rd and South Jct Main St	211	D	19,300	E
27	SR 49 b/w Fifth Ave and East Jct SR 108	210	D	23,500	E
31	SR 49 b/w Stockton Rd and Dodge St	211	D	18,500	E
32	SR 49 n/o Dodge St	211	D	19,400	E
33	SR 49 s/o N Washington St / Columbia Way	211	D	16,100	E
52	Mono Way w/o Sanguinetti Rd	210	D	22,205	E
116	S Washington St b/w Restano Way & Church St	212	D	18,595	E

Notes: AADT = Annual Average Daily Traffic, LOS = Level of Service

As shown in **Table 5**, seven (7) of the 150 study roadway segments are currently operating below acceptable LOS conditions. The remaining study roadway segments are currently operating at acceptable LOS conditions.

All improvements and mitigation measures are discussed in a subsequent section of this report.

CHAPTER 3 – ALTERNATIVE GROWTH SCENARIOS

Tuolumne County traffic operations are analyzed under four alternative growth scenarios, three defined in the *Tuolumne Tomorrow: Tuolumne County Regional Blueprint Project Report* (August 2012) and a fourth based on the old general plan map, under two future years, 2030 and 2040, in this EIR Traffic Study. The alternative growth scenarios represent different ways growth can be concentrated and distributed in Tuolumne County. The four alternative growth scenarios are defined as follows (taken from their descriptions in the Tuolumne Tomorrow Report):

Distinctive Communities (Proposed): *Within the Distinctive Communities alternative growth scenario, each community contains a well-defined, cohesive, and compact community built around an appropriately-scaled urban core and community gathering places....The existing urban development boundaries may be expanded to allow dense growth to occur near existing community nodes. Infill, redevelopment, and mixed-use are used to take advantage of existing public infrastructure and services. Residential and commercial areas become more compact within new urban development boundaries promoting mixed-use and higher density residential development to supply housing demand....By having compact communities, auto dependency is greatly reduced and walking, bicycling, and transit use becomes an increasing form of transportation.*

Public Services (Proposed): *In the Public Services alternative growth scenario, growth is located where multiple services, such as major transportation corridors, transit lines, and public water and sewer, are located. Development will continue to grow within defined communities, however development will radiate outward along a select number of arterials, major collectors, and transit corridors where public water and sewer exist, creating linear communities containing a mix of multi-family housing, townhouses, neighborhood commercial and traditional neighborhoods....This scenario will result in some auto dependency for residents residing beyond transit corridors and community cores. The amount of Mixed-Use land uses will increase by placing these uses in close proximity to transit stations and community cores, thereby increasing walkability in these areas.*

Recent Trends (Existing): *The Recent Trends Scenario is based on the existing City's and County's General Plan land use designations and assumes no change in market demand for housing types. This scenario continues the existing pattern of development, in which Residential Medium (Single-Family Residential, R-1, District) is the primary demand choice for residential development....This scenario will require auto dependency for many parts of Tuolumne County, because walkable communities, defined as a 5-minute walk (1/4) mile between home and the core of a community, shopping, jobs, recreation, community facilities and transit, would exist only within community cores.*

Recent Trends (Proposed): *The Recent Trends Scenario is based on the proposed City's and County's General Plan land use designations and assumes no change in market demand for housing types. This scenario continues the existing pattern of development, in which Residential Medium (Single-Family Residential, R-1, District) is the primary demand choice for residential development....This scenario will require auto dependency for many parts of Tuolumne County, because walkable communities, defined as a 5-minute walk (1/4) mile between home and the core of a community, shopping, jobs, recreation, community facilities and transit, would exist only within community cores.*

A summary of the alternative growth scenarios' land uses is shown in **Table 6**.

Table 6. Alternative Growth Scenarios Land Use Differences

No.	Model Land Use Category (Units used by the model)	Base Year 2015	2030 Alt Growth Scenarios				2040 Alt Growth Scenarios			
			DC(P)	PS(P)	RT(E)	RT(P)	DC(P)	PS(P)	RT(E)	RT(P)
1	Single Family Residential (DUs)	19,435	22,172	22,316	22,602	22,602	23,767	24,347	24,453	24,459
3	Multi-Family Residential (DUs)	1,805	2,326	2,199	1,905	1,900	2,632	2,474	1,962	1,956
12	Minor Commercial (KSF)	1,888	2,281	2,281	2,281	2,281	2,510	2,561	2,510	2,510
13	Major Commercial (KSF)	2,736	2,934	2,928	2,934	2,934	3,052	3,064	3,052	3,052
18	Industrial (KSF)	1,718	1,840	1,837	1,841	1,840	1,914	1,925	1,915	1,914
19	Public Lands (Acres)	10,999	11,026	11,025	11,026	11,028	11,041	11,046	11,042	11,044

Notes: DUs = Dwelling Units, KSF = 1,000 square feet

DC(P) = Distinctive Communities (Proposed), PS(P) = Public Services (Proposed), RT(E) = Recent Trends (Existing), RT(P) = Recent Trends (Proposed)

Future forecasts have been developed for the four alternative growth scenarios under years 2030 and 2040 utilizing the updated Tuolumne County Regional Travel Demand Model. This process was documented in the *Tuolumne County Regional Travel Demand Model Update – Model Development Report* (Wood Rodgers, May 2015). The forecasted future year roadway ADT volumes for all scenarios are shown in **Appendix Table 10**. The forecasted future year intersection turning movement volumes for all scenarios can be found in **Appendix Figures 3-10**.

CHAPTER 4 – FUTURE CONDITIONS ANALYSIS

A. YEAR 2030 CONDITIONS

As stated in a prior section of this report, this traffic study analyzes year 2030 traffic conditions under four alternative growth scenarios: Distinctive Communities (Proposed), Public Services (Proposed), Recent Trends (Existing), and Recent Trends (Proposed).

ASSUMED YEAR 2030 IMPROVEMENTS

Based on discussion with TCTC, a number of intersection and roadway improvement projects are assumed to be complete by year 2030 conditions. These improvements include Tier 1a improvement projects as well as short-term and mid-term capital improvement projects. A list of intersection and roadway improvement projects assumed complete by year 2030, along with their descriptions, is included as **Appendix Table 5**. Intersection lane geometrics and control for year 2030 conditions are shown in **Figure 3**.

Study roadway segments and intersections may potentially experience a change in LOS as a result of a planned Capital Improvement Project (CIP). A list of study roadway segments and intersections that may be affected by each relevant planned improvement for year 2030 conditions is as follows:

CIP #1 Signalization of Fifth Avenue at State Route 108, construction of right turn lanes on Fifth Avenue in the northbound and southbound directions, widening of SR 108/49 for a right lane turn pocket:

Roadways:

- 5. SR 108, e/o East Jct SR 49

CIP #2 Parrotts Ferry Road intersection improvements:

Intersections:

- 14. SR 49 & Parrotts Ferry Road (Columbia Jctn)

CIP #3 Widening and realignment of Tuolumne Road between Lambert Lake Road and Terrance Drive:

Roadways:

- 77. Tuolumne Road, b/w Mono Way & Lambert Lake Road

CIP #4 Widening and realignment of Phoenix Lake Road from Ridgewood Road to Paseo de Los Portales Road:

Roadways:

- 97. Phoenix Lake Road, e/o Ridgewood Drive

CIP #6 Construction of a new Rawhide Road bridge and Rawhide Road realignment with Main Street & SR 108/49:

Roadways:

- 93. Rawhide Road, n/o SR 49/108

Intersections:

- 7. Humbug Street/Rawhide Road & SR 49-SR 108
- 8. Main Street/Jamestown Road & SR 49-SR 108

CIP #23 Construction of a new major collector road from the intersection of Greenley Road/Lyons Bald Mountain Road/Lyons Street to SR 49:

Roadways:

- 68. Greenley Road, b/w Lyons Bald Mountain Road/Lyons Road & Cabezut Road
- 139. Lyons Bald Mountain Road, e/o Greenley Road
- 140. Lyons Street, w/o Greenley Road
- 28. – 34. SR 49 from SR 108 to n/o North Washington Street/Columbia Way; 52. Mono Way w/o Sanguinetti Road, 53. Mono Way b/w Sanguinetti Road & Greenley Road; 115. South Washington Street n/o SR 108, 116. South Washington Street b/w Restano Way & Church Street (segments of SR 49 through downtown Sonora indirectly affected by the Greenley Road extension)

Intersections:

- 28. – 30. Greenly Road intersections with Lyons Bald Mountain Road, Morning Star/Cabezut Road, and Mono Way
- 15. – 27. SR 49 intersections through downtown Sonora, Restano Way intersections with Bulwer Street and Mono Way/South Stewart Street, and Lime Kiln Road/South Washington Street intersection with SR 108 (study intersections indirectly affected by the Sonora Bypass)

CIP #24 – #26 Widening of SR 49/SR 108 to five lanes between the SR 49 (Stockton Road) junction to Chicken Ranch Road:

Roadways:

- 24. – 27. SR 49 from Bell Mooney Road to East Jct SR 108

Intersections:

- 5. – 9., 11. SR 49-SR 108 intersections from Chicken Ranch Road to SR 49 (Stockton Road)

CIP #27 Widening of SR 108/SR49 to a four-lane Expressway between Chicken Ranch Road to Green Springs Road/La Grange Road:

Roadways:

- 2. – 4. SR 108 from La Grange Road to West Jct SR 49

Intersections:

- 1. SR 108-SR 120 & O'Byrnes Ferry Road, 2. SR 120 & SR 108-SR 120/SR 108
- 4. SR 49 (Montezuma Road) & SR 120/SR 49-SR 120, 5. SR 49-SR 108 & Chicken Ranch Road

CIP #28 Widening of SR 49 to five lanes from Parrotts Ferry Road to the new SR 49/Greenley Road intersection:

Roadways:

- 34. SR 49 Corridor, n/o North Washington Street / Columbia Way
- 35. SR 49 Corridor, e/o Parrots Ferry Road (Columbia WYE)

Intersections:

- 14. SR 49 & Parrotts Ferry Road (Columbia Jctn)

CIP #29 Construction of capacity improvements at the Greenley Road & Mono Way intersection:

Intersections:

- 30. Greenly Road & Mono Way

CIP #30 Construction of capacity improvements at the Lime Kiln Road/South Washington Street & SR 108 intersection:

Intersections:

- 27. Lime Kiln Road/South Washington Street & SR 108

CIP #31 Construction of a new High T intersection at the Yosemite Junction (SR 108/SR 120):

Intersections:

- 2. SR 120 & SR 108-SR 120/SR 108

INTERSECTIONS

Traffic operations for all 41 study intersections under year 2030 AM and PM peak hour conditions, all four alternative growth scenarios, and year 2030 lane geometrics and control are shown in

Appendix Tables 7 and 8. Operations for all intersections projected to operate below acceptable standards under Year 2030 AM peak hour conditions are shown in **Table 7.**

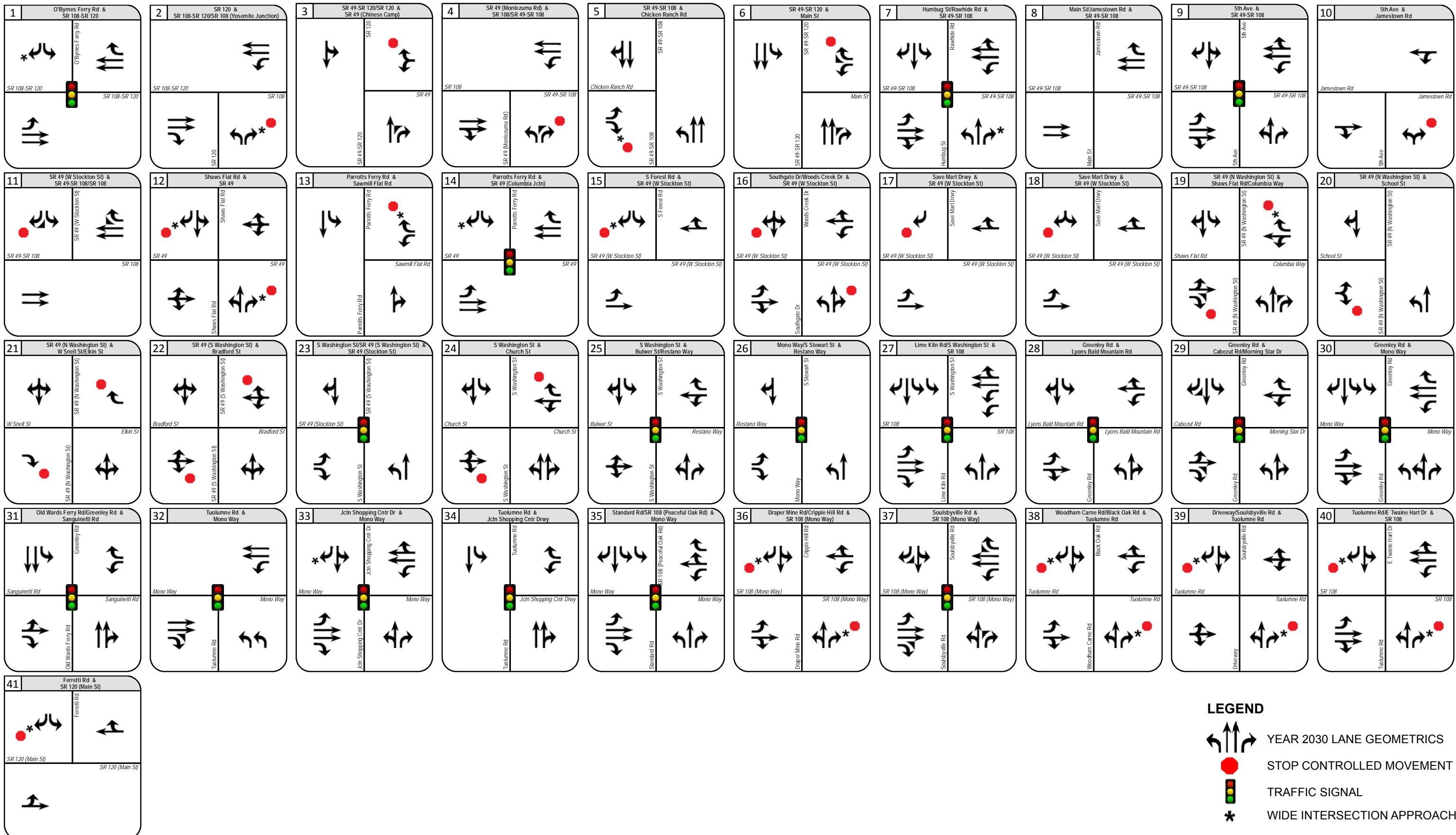
Table 7. Year 2030 Intersections with Unacceptable LOS – AM Peak Hour

#	Intersection	Control Type	LOS Std.	Distinctive Communities (Proposed)		Public Services (Proposed)		Recent Trends (Existing)		Recent Trends (Proposed)	
				Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
13	Parrotts Ferry Rd & Sawmill Flat Rd	TWSC	D	76.9	F	81.4	F	86.5	F	86.5	F
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	D	56.0	F	58.2	F	59.0	F	47.1	E
24	S Washington St & Church St	TWSC	D	49.0	E	48.5	E	49.0	E	47.5	E
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	TWSC	D	225.9	F	196.4	F	219.2	F	212.6	F
39	Tuolumne Rd & Soulsbyville Rd	TWSC	D	73.2	F	76.3	F	74.2	F	73.2	F

Notes:

1. TWSC = Two-Way-Stop Control, AWSC = All-Way-Stop Control
2. For TWSC intersection, worst-case movement delays (in seconds/vehicle) is indicated. "Average" control delays (in seconds/vehicle) are indicated for AWSC and signal-controlled intersections. Delays reported in above table are from Synchro 8 software.
3. Bold numbers and letters represent condition where intersection does not meet minimum acceptable standards.

As shown in **Table 7**, the Parrotts Ferry Road and Sawmill Flat Road, SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way, South Washington Street and Church Street, Woodham Carne Road/Black Oak Road and Tuolumne Road, and Tuolumne Road and Soulsbyville Road intersections are projected to operate at year 2030 AM peak hour LOS “E/F” conditions under all four alternative growth scenarios. All other study intersections are projected to operate at acceptable year 2030 AM peak hour or better conditions under all four alternative growth scenarios.



Year 2030 Conditions - Intersection Lane Geometrics and Control

Tuolumne County EIR Traffic Study

Figure 3

All unsignalized intersections projected to meet signal warrants under Year 2030 AM peak hour conditions are shown in **Table 8**.

Table 8. Year 2030 Intersections that Meet Signal Warrants – AM Peak Hour

#	Intersection	Control Type	Distinctive Communities (Proposed)	Public Services (Proposed)	Recent Trends (Existing)	Recent Trends (Proposed)
			Warrant Met?	Warrant Met?	Warrant Met?	Warrant Met?
4	SR 49 (Montezuma Rd) & SR 120/SR 49-SR 120	TWSC	YES	YES	YES	YES
6	SR 49-SR 108 & Main St	TWSC	YES	YES	YES	YES
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	TWSC	YES	YES	YES	YES
13	Parrots Ferry Rd & Sawmill Flat Rd	TWSC	YES	YES	YES	YES
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	YES	YES	YES	YES
21	SR 49 (N Washington St) & W Snell St/Elkin St	TWSC	YES	YES	YES	YES
22	SR 49 (N Washington St) & Bradford St	TWSC	YES	YES	YES	NO
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	TWSC	YES	YES	YES	YES
39	Tuolumne Rd & Soulsbyville Rd	TWSC	YES	YES	YES	YES

Notes:
Warrant = California MUTCD 2012 based Peak-hour-Volume Warrant #3 (70% Factor).

As shown in **Table 8**, California MUTCD based traffic signal Peak Hour Warrant 3 (70%-Factor) is projected to be met at nine (9) unsignalized study intersections under year 2030 AM peak hour conditions. Eight of the nine intersections are projected to meet the signal warrant under all four alternative growth scenarios, while the Tuolumne Road and Soulsbyville Road intersection is projected to meet the signal warrant under the Distinctive Communities (Proposed), Public Services (Proposed), and Recent Trends (Existing) scenarios.

All intersections projected to operate below acceptable standards under Year 2030 PM peak hour conditions are shown in **Table 9**.

Table 9. Year 2030 Intersections with Unacceptable LOS – PM Peak Hour

#	Intersection	Control Type	LOS std.	Distinctive Communities (Proposed)	Public Services (Proposed)	Recent Trends (Existing)	Recent Trends (Proposed)		
				Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
13	Parrots Ferry Rd & Sawmill Flat Rd	TWSC	D	113.8	F	118.8	F	128.9	F
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	D	61.9	F	41.4	E	64.7	F
24	S Washington St & Church St	TWSC	D	71.1	F	72.3	F	72.3	F
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	TWSC	D	48.3	E	45.0	E	46.8	E

Notes:

1. TWSC = Two-Way-Stop Control, AWSC = All-Way-Stop Control
2. For TWSC intersection, worst-case movement delays (in seconds/vehicle) is indicated. "Average" control delays (in seconds/vehicle) are indicated for AWSC and signal-controlled intersections. Delays reported in above table are from Synchro 8 software.
3. Bold numbers and letters represent condition where intersection does not meet minimum acceptable standards.

As shown in **Table 9**, the Parrots Ferry Road and Sawmill Flat Road, SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way, South Washington Street and Church Street, and Woodham Carne Road/Black Oak Road and Tuolumne Road intersections are projected

to operate at unacceptable year 2030 PM peak hour LOS “E/F” conditions under all four alternative growth scenarios. All other study intersections are projected to operate at acceptable year 2030 PM peak hour conditions under all four alternative growth scenarios.

All unsignalized intersections projected to meet signal warrants under Year 2030 PM peak hour conditions are shown in **Table 10**.

Table 10. Year 2030 Intersections that Meet Signal Warrants – PM Peak Hour

#	Intersection	Control Type	Distinctive Communities (Proposed)	Public Services (Proposed)	Recent Trends (Existing)	Recent Trends (Proposed)
			Warrant Met?	Warrant Met?	Warrant Met?	Warrant Met?
2	SR 120 & SR 108-SR 120/SR 108	TWSC	YES	YES	YES	YES
4	SR 49 (Montezuma Rd) & SR 120/SR 49-SR 120	TWSC	YES	YES	YES	YES
5	SR 49-SR 108 & Chicken Ranch Rd	TWSC	YES	YES	YES	YES
6	SR 49-SR 108 & Main St	TWSC	YES	YES	YES	YES
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	TWSC	YES	YES	YES	YES
13	Parrotts Ferry Rd & Sawmill Flat Rd	TWSC	YES	YES	YES	YES
18	SR 49 (Stockton Rd) & E. Savemart Drwy	TWSC	YES	YES	YES	YES
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	YES	YES	YES	YES
21	SR 49 (N Washington St) & W Snell St/Elkin St	TWSC	YES	YES	YES	YES
24	S Washington St & Church St	TWSC	YES	YES	YES	YES
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	TWSC	YES	YES	YES	YES
39	Tuolumne Rd & Soulsbyville Rd	TWSC	YES	YES	YES	YES

Notes:
Warrant = California MUTCD 2012 based Peak-hour-Volume Warrant #3 (70% Factor).

As shown in **Table 10**, California MUTCD based traffic signal Peak Hour Warrant 3 (70%-Factor) is projected to be met at 12 unsignalized study intersections under year 2030 PM peak hour conditions under all four alternative growth scenarios.

All improvements and mitigation measures are discussed in a subsequent section of this report.

ROADWAY SEGMENTS

Roadway operations for all 150 study roadway segments under year 2030 average daily conditions, all four alternative growth scenarios, and year 2030 roadway capacity configurations were quantified utilizing roadway ADT-based LOS thresholds presented in **Table 2**. The results are summarized in **Appendix Tables 10 and 11** and **Appendix Figures 12-19**. Operations for all roadway segments projected to operate below acceptable standards under Year 2030 average daily conditions are shown in **Table 11**.

Table 11. Year 2030 Roadways with Unacceptable LOS

#	Roadway Segment	Type #	LOS Std.	Distinctive Communities (Proposed)		Public Services (Proposed)		Recent Trends (Existing)		Recent Trends (Proposed)	
				AADT	LOS	AADT	LOS	AADT	LOS	AADT	LOS
5	SR 108 b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	210	D	22,067	E	22,071	E	22,294	E	22,186	E
31	SR 49 b/w Stockton Rd and Dodge St	211	D	16,833	E	16,923	E	17,015	E	16,749	E
52	Mono Way w/o Sanguinetti Rd	210	D	20,777	E	20,611	E	20,019	D	19,628	D
77	Tuolumne Rd b/w Mono Way & Lambert Lake Rd	212	D	15,768	D	15,802	E	15,884	E	15,783	D
116	S Washington St b/w Restano Way & Church St	212	D	16,678	E	16,600	E	16,687	E	16,497	E

Notes: AADT = Annual Average Daily Traffic, LOS = Level of Service

As shown in **Table 11**, the following roadway segments are projected to operate at unacceptable Year 2030 LOS “E” conditions on an AADT basis under all four alternative growth scenarios: SR 108 between SR 49 (Stockton Road) and South Washington St/Lime Kiln Road, SR 49 between Stockton Road and Dodge Street, and South Washington Street between Restano Way and Church Street. The segment of Mono Way west of Sanguinetti Road is projected to operate at unacceptable Year 2030 LOS “E” conditions on an AADT basis under the Distinctive Communities (Proposed) and Public Services (Proposed) scenarios. The segment of Tuolumne Road between Mono Way and Lambert Lake Road is projected to operate at unacceptable Year 2030 LOS “E” conditions on an AADT basis under the Public Services (Proposed) and Recent Trends (Existing) scenarios. Note that the projected Year 2030 AADT volumes for roadway segments 52 and 77 are very close to the LOS “D/E” border under all four alternative growth scenarios. All other study roadway segments are projected to operate at acceptable year 2030 AADT LOS or better conditions under all four alternative growth scenarios.

All improvements and mitigation measures are discussed in a subsequent section of this report.

B. YEAR 2040 CONDITIONS

As stated in a prior section of this report, this traffic study analyzes year 2040 traffic conditions under four Alternative Growth Scenarios: Distinctive Communities (Proposed), Public Services (Proposed), Recent Trends (Existing), and Recent Trends (Proposed).

ASSUMED YEAR 2040 IMPROVEMENTS

Based on discussion with TCTC, a number of intersection and roadway improvement projects are assumed to be complete by year 2040 conditions in addition to those improvements assumed complete by year 2030. These improvements primarily include long-term capital improvement projects. A list of intersection and roadway improvement projects assumed complete by year 2040, along with their descriptions, is included as **Appendix Table 6**. Intersection lane geometrics and control for year 2040 conditions are shown in **Figure 4**.

Study roadway segments and intersections may potentially experience a change in LOS as a result of a planned Capital Improvement Project (CIP). A list of study roadway segments and intersections that may be affected by each relevant planned improvement for year 2040 conditions is as follows:

CIP #1 Widening of SR 108 to five lanes from Mono Way/Via Este to North Sunshine

Road/Mono Vista Road:

Roadways:

- 11. SR 108 Corridor, b/w Mono Way and Soulsbyville Road

Intersections:

- 36. Draper Mine Road/Cripple Hill Road & SR 108 (Mono Way)

CIP #2 Widening of Tuolumne Road to five lanes from Mono Way to Hess Avenue:

Roadways:

- 77. Tuolumne Road, b/w Mono Way & Lambert Lake Road, 78. Tuolumne Road, b/w Lambert Lake Road & Hess Avenue

Intersections:

- 32. Tuolumne Road & Mono Way
- 34. Tuolumne Road & Jctn Shopping Center

CIP #3 Widening of Mono Way to five lanes from Hess Avenue to Standard Road/Peaceful Oak Road:

Roadways:

- 57. Mono Way, b/w Hess Avenue & Standard Road / Peaceful Oak Drive

Intersections:

- 35. Standard Road/Peaceful Oak Road & Mono Way

CIP #4 Signalization of the Parrotts Ferry Road & Sawmill Flat Road intersection

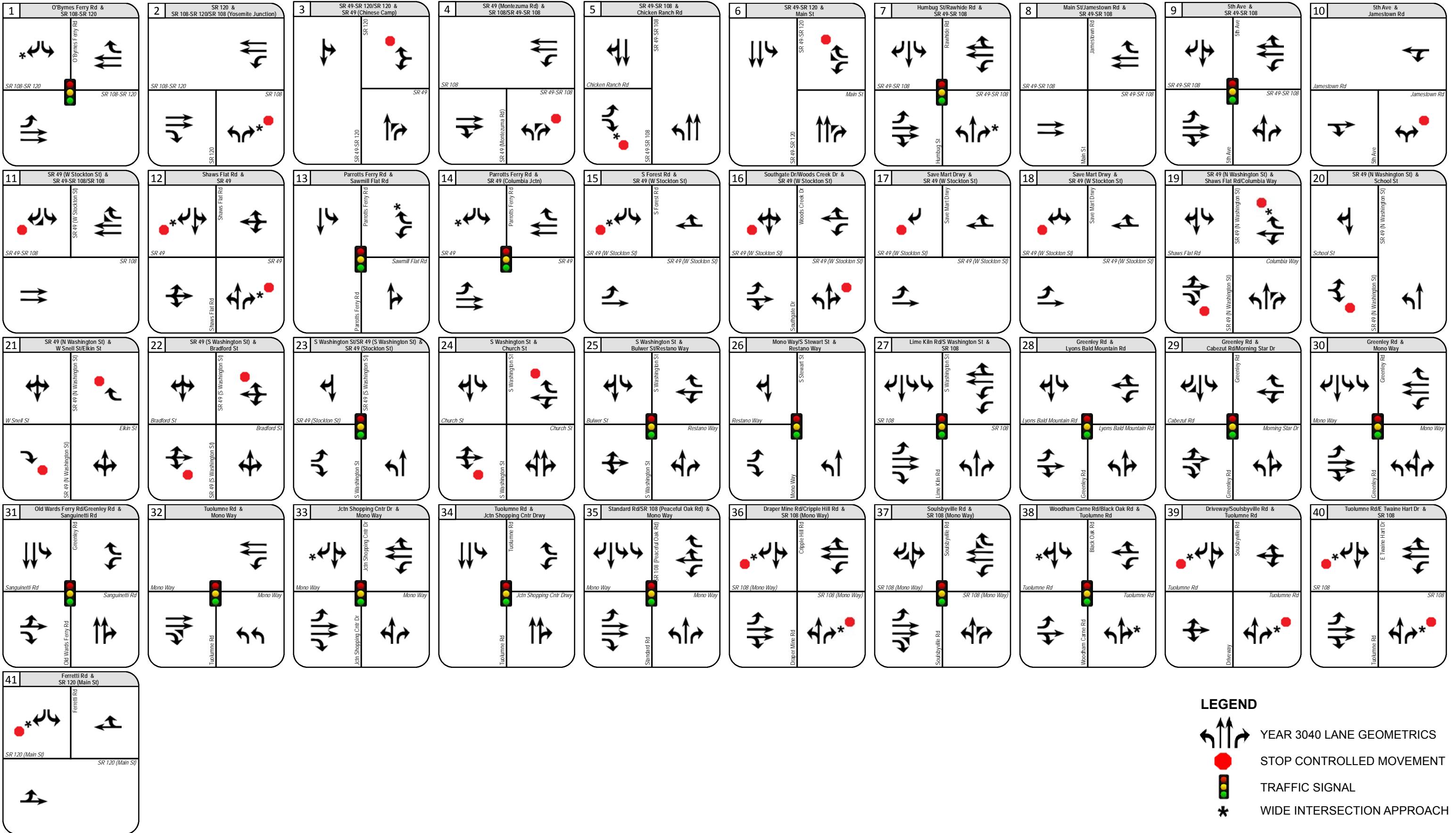
Intersections:

- 13. Parrotts Ferry Road & Sawmill Flat Road

CIP #5 Signalization of the Tuolumne Road & Woodham Carne Road/Black Oak Road and realignment of Woodham Carne Road:

Intersections:

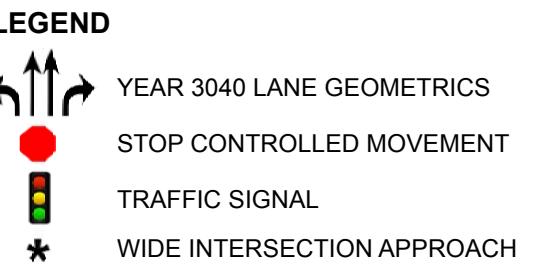
- 38. Woodham Carne Road/Black Oak Road & Tuolumne Road



Year 2040 Conditions - Intersection Lane Geometrics and Control

Tuolumne County EIR Traffic Study

Figure 4



INTERSECTIONS

Traffic operations for all 41 study intersections under year 2040 AM and PM peak hour conditions, all four alternative growth scenarios, and year 2040 lane geometrics and control are shown in

Appendix Tables 7 and 8. Operations for all intersections projected to operate below acceptable standards under Year 2040 AM peak hour conditions are shown in **Table 12.**

Table 12. Year 2040 Intersections with Unacceptable LOS – AM Peak Hour

#	Intersection	Control Type	LOS Std.	Distinctive Communities (Proposed)		Public Services (Proposed)		Recent Trends (Existing)		Recent Trends (Proposed)	
				Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	D	59.9	F	64.3	F	68.4	F	56.8	F
23	S Washington St/SR 49 (S Washington St) & SR 49 (Stockton Rd)	Signal	D	56.1	E	55.1	E	59.6	E	52.6	D
24	S Washington St & Church St	TWSC	D	57.3	F	57.3	F	57.3	F	56.6	F
39	Tuolumne Rd & Soulsbyville Rd	TWSC	D	89.7	F	93.7	F	96.2	F	87.3	F

Notes:

1. TWSC = Two-Way-Stop Control, AWSC = All-Way-Stop Control
2. For TWSC intersection, worst-case movement delays (in seconds/vehicle) is indicated. "Average" control delays (in seconds/vehicle) are indicated for AWSC and signal-controlled intersections. Delays reported in above table are from Synchro 8 software.
3. Bold numbers and letters represent condition where intersection does not meet minimum acceptable standards.

As shown in **Table 12**, the SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way, South Washington Street and Church Street, and Tuolumne Road and Soulsbyville Road intersections are projected to operate at year 2040 AM peak hour LOS "F" conditions under all four alternative growth scenarios. The South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection is projected to operate at year 2040 AM peak hour LOS "E" conditions under the Distinctive Communities (Proposed), Public Services (Proposed), and Recent Trends (Existing) scenarios. All other study intersections are projected to operate at acceptable year 2040 AM peak hour or better conditions under all four alternative growth scenarios.

All unsignalized intersections projected to meet signal warrants under Year 2040 AM peak hour conditions are shown in **Table 13.**

Table 13. Year 2040 Intersections that Meet Signal Warrants – AM Peak Hour

#	Intersection	Control Type	Distinctive Communities (Proposed)		Public Services (Proposed)		Recent Trends (Existing)		Recent Trends (Proposed)	
			Warrant Met?	Warrant Met?	Warrant Met?	Warrant Met?	Warrant Met?	Warrant Met?	Warrant Met?	Warrant Met?
4	SR 49 (Montezuma Rd) & SR 120/SR 49-SR 120	TWSC	YES		YES		YES		YES	
6	SR 49-SR 108 & Main St	TWSC	YES		YES		YES		YES	
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	TWSC	YES		YES		YES		YES	
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	YES		YES		YES		YES	
21	SR 49 (N Washington St) & W Snell St/Elkin St	TWSC	YES		YES		YES		YES	
22	SR 49 (N Washington St) & Bradford St	TWSC	YES		YES		YES		YES	
39	Tuolumne Rd & Soulsbyville Rd	TWSC	YES		YES		YES		YES	

Notes:

Warrant = California MUTCD 2012 based Peak-hour-Volume Warrant #3 (70% Factor).

As shown in **Table 13**, California MUTCD based traffic signal Peak Hour Warrant 3 (70%-Factor) is projected to be met at seven (7) unsignalized study intersections under year 2040 AM peak hour conditions under all four alternative growth scenarios.

All intersections projected to operate below acceptable standards under Year 2040 PM peak hour conditions are shown in **Table 14**.

Table 14. Year 2040 Intersections with Unacceptable LOS – PM Peak Hour

#	Intersection	Control Type	LOS Std.	Distinctive Communities (Proposed)		Public Services (Proposed)		Recent Trends (Existing)		Recent Trends (Proposed)	
				Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
12	Shaws Flat Rd & SR 49	TWSC	D	30.6	D	34.6	D	35.6	E	34.4	D
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	D	67.9	F	73.8	F	79.4	F	65.7	F
24	S Washington St & Church St	TWSC	D	91.2	F	89.2	F	91.2	F	73.5	F

Notes:

1. TWSC = Two-Way-Stop Control, AWSC = All-Way-Stop Control
2. For TWSC intersection, worst-case movement delays (in seconds/vehicle) is indicated. "Average" control delays (in seconds/vehicle) are indicated for AWSC and signal-controlled intersections. Delays reported in above table are from Synchro 8 software.
3. Bold numbers and letters represent condition where intersection does not meet minimum acceptable standards.

As shown in **Table 14**, the SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way and South Washington Street and Church Street intersections are projected to operate at year 2040 PM peak hour LOS “F” conditions under all four alternative growth scenarios. The Shaws Flat Road and SR 49 intersection is projected to operate at year 2040 PM peak hour LOS “E” conditions under the “Recent Trends (Existing)” growth scenario. All other study intersections are projected to operate at acceptable year 2040 AM peak hour conditions under all four alternative growth scenarios.

All unsignalized intersections projected to meet signal warrants under Year 2040 PM peak hour conditions are shown in **Table 15**.

Table 15. Year 2040 Intersections that Meet Signal Warrants – PM Peak Hour

#	Intersection	Control Type	Distinctive Communities (Proposed)	Public Services (Proposed)	Recent Trends (Existing)	Recent Trends (Proposed)
			Warrant Met?	Warrant Met?	Warrant Met?	Warrant Met?
2	SR 120 & SR 108-SR 120/SR 108	TWSC	YES	YES	YES	YES
4	SR 49 (Montezuma Rd) & SR 120/SR 49-SR 120	TWSC	YES	YES	YES	YES
5	SR 49-SR 108 & Chicken Ranch Rd	TWSC	YES	YES	YES	YES
6	SR 49-SR 108 & Main St	TWSC	YES	YES	YES	YES
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	TWSC	YES	YES	YES	YES
18	SR 49 (Stockton Rd) & E. Savemart Drwy	TWSC	YES	YES	YES	YES
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	YES	YES	YES	YES
21	SR 49 (N Washington St) & W Snell St/Elkin St	TWSC	YES	YES	YES	YES
24	S Washington St & Church St	TWSC	YES	YES	YES	YES
39	Tuolumne Rd & Soulsbyville Rd	TWSC	YES	YES	YES	YES
41	SR 120 (Main St) & Ferretti Rd	TWSC	YES	YES	YES	YES

Notes: Warrant = California MUTCD 2012 based Peak-hour-Volume Warrant #3 (70% Factor).

As shown in **Table 15**, California MUTCD based traffic signal Peak Hour Warrant 3 (70%-Factor) is projected to be met at 11 unsignalized study intersections under year 2040 PM peak hour conditions under all four alternative growth scenarios.

All improvements and mitigation measures are discussed in a subsequent section of this report.

ROADWAY SEGMENTS

Roadway operations for all 150 study roadway segments under year 2040 average daily conditions, all four alternative growth scenarios, and year 2040 roadway capacity configurations were quantified utilizing roadway ADT-based LOS thresholds presented in **Table 2**. The results are summarized in **Appendix Tables 10 and 11** and **Appendix Figures 12-19**. Operations for all roadway segments projected to operate below acceptable standards under Year 2040 average daily conditions are shown in **Table 16**.

Table 16. Year 2040 Roadways with Unacceptable LOS

#	Roadway Segment	Type #	LOS Std.	Distinctive Communities (Proposed)		Public Services (Proposed)		Recent Trends (Existing)		Recent Trends (Proposed)	
				AADT	LOS	AADT	LOS	AADT	LOS	AADT	LOS
5	SR 108 b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	210	D	22,966	E	22,970	E	23,202	E	23,090	E
31	SR 49 b/w Stockton Rd and Dodge St	211	D	17,924	E	17,966	E	18,064	E	17,782	E
32	SR 49 n/o Dodge St	211	D	15,929	D	15,967	D	16,127	E	15,946	D
52	Mono Way w/o Sanguinetti Rd	210	D	22,416	E	22,258	E	21,708	E	22,211	E
62	Parrotts Ferry Rd b/w SR 49 & Sawmill Flat Rd	213	D	12,763	D	12,799	D	12,985	E	12,914	E
69	Greenley Rd b/w Cabezut Rd/Morning Star Rd & Delnero Dr	212	D	15,932	E	16,585	E	16,132	E	16,221	E
116	S Washington St b/w Restano Way & Church St	212	D	17,706	E	17,623	E	17,716	E	17,514	E

Notes: AADT = Annual Average Daily Traffic, LOS = Level of Service

As shown in **Table 16**, the following roadway segments are projected to operate at unacceptable Year 2040 LOS “E” conditions on an AADT basis under all four alternative growth scenarios: SR 108 between SR 49 (Stockton Road) and South Washington St/Lime Kiln Road, SR 49 between Stockton Road and Dodge Street, Mono Way west of Sanguinetti Road, Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive, and South Washington Street between Restano Way and Church Street. The segment of SR 49 north of Dodge Street is projected to operate at unacceptable Year 2040 LOS “E” conditions on an AADT basis under the Recent Trends (Existing) scenario. The segment of Parrotts Ferry Road between SR 49 and Sawmill Flat Road is projected to operate at unacceptable Year 2040 LOS “E” conditions on an AADT basis under the Recent Trends (Existing) and Recent Trends (Proposed) scenarios. Note that the projected Year 2040 AADT volumes for roadway segments 32 and 62 are very close to the LOS D/E border under all four alternative growth scenarios. All other study roadway segments are projected to operate at acceptable year 2040 AADT LOS or better conditions under all four alternative growth scenarios.

All improvements and mitigation measures are discussed in a subsequent section of this report.

The *Synchro* based LOS outputs and California MUTCD based Traffic Signal Peak hour Warrant 3 (70% Factor) worksheets for all future years and alternative growth scenarios are included in **Appendix Attachments 1** and **2**, respectively.

CHAPTER 5 –IMPACTS AND MITIGATION MEASURES

This section summarizes future year traffic impacts, their significance on critical study area transportation facilities, and appropriate improvements and mitigation measures to alleviate those impacts to acceptable levels. A discussion of planned roadway improvements that are assumed constructed by future year conditions were presented in the preceding sections of this report. It should be noted that all improvement/mitigation recommendations contained herein are conceptual planning/program level recommendations only.

EXISTING CONDITIONS

The Traffic Study Report is a planning level analysis that quantifies existing and future traffic conditions with proposed improvements. The forecasted LOS traffic impacts and associated improvements will be reconsidered on a project by project basis with a thorough operational analysis.

INTERSECTIONS

Intx – 5. SR 49-SR 108 and Chicken Ranch Road:

Impact: The SR 49–SR 108 and Chicken Ranch Road intersection is currently operating at unacceptable PM peak hour LOS “E” conditions for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is currently met at this intersection under PM peak hour conditions.

Mitigation: SR 49-SR 108 near Chicken Ranch Road is planned (according to TCTC’s current list of mid-range capital improvement projects) to be widened to five lanes by year 2030. With the planned widening in place, the SR 49-SR 108 and Chicken Ranch Road intersection is projected to operate at acceptable AM and PM peak hour LOS “C” or better conditions.

Intx – 8. Main Street/Jamestown Road and SR 49–SR 108:

Impact: The Main Street/Jamestown Road and SR 49–SR 108 intersection is currently operating at unacceptable AM and PM peak hour LOS “F” conditions for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is currently met at this intersection under AM and PM peak hour conditions.

Mitigation: The Main Street/Jamestown Road and SR 49–SR 108 intersection is planned (according to TCTC’s current list of mid-range capital improvement projects) to be realigned/eliminated by year 2030. The realigned Jamestown Road and SR 49-SR 108 intersection would only allow right-turn-in movements and no out movements to/from Jamestown Road. With the planned improvements in place, there would no longer be any conflicting movements at this intersection.

Intx – 9. Fifth Avenue and SR 49-SR 108:

Impact: The Fifth Avenue and SR 49-SR 108 intersection is currently operating at unacceptable AM and PM peak hour LOS “F” conditions for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is currently met at this intersection under AM and PM peak hour conditions.

Mitigation: The Fifth Avenue and SR 49-SR 108 intersection is planned (according to TCTC’s current list of mid-range capital improvement projects) to be realigned and signalized by year 2030. With the planned signalization in place, the Fifth Avenue and SR 49-SR 108 intersection is projected to operate at acceptable AM and PM peak hour LOS “B” or better conditions.

Intx – 11. SR 49-SR 108 and SR 49 (Stockton Road):

Impact: The SR 49-SR 108 and SR 49 (Stockton Road) intersection is currently operating at unacceptable AM and PM peak hour LOS “E/F” conditions for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is currently met at this intersection under AM and PM peak hour conditions.

Mitigation: SR 108-SR 49 is planned (according to TCTC’s current list of mid-range capital improvement projects) to be widened to five lanes through the SR 49-SR 108 and SR 49 (Stockton Road) intersection by year 2030. With the planned widening in place, the SR 49-SR 108 and SR 49 (Stockton Road) intersection is projected to operate at AM and PM peak hour LOS “D” or better conditions.

Alternatively, Caltrans could consider initiating a safety study and moving forward with a Project Initiation Document to determine what type of capital improvements are needed at this intersection.

Intx – 13. Parrotts Ferry Road and Sawmill Flat Road:

Impact: The Parrotts Ferry Road and Sawmill Flat Road intersection is currently operating at unacceptable AM and PM peak hour LOS “E/F” conditions for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is currently met at this intersection under AM and PM peak hour conditions.

Mitigation: Signalization of the Parrotts Ferry Road and Sawmill Flat Road intersection is listed in TCTC’s list of long-range capital improvement projects. In this study, the long-range capital improvement projects are not assumed to be complete until year 2040. In order to achieve acceptable LOS under Existing conditions, it is recommended that the Parrotts Ferry Road and Sawmill Flat Road intersection be signalized by 2030. With the recommended improvements in place, Parrotts Ferry Road and Sawmill Flat Road intersection is projected to operate at acceptable Existing AM and PM peak hour LOS “B” or better conditions.

Intx – 19 and 20. SR 49 (North Washington Street)/SR 49 intersections with North Washington Street/Columbia Way and School Street:

Impact: The SR 49 (North Washington Street)/SR 49 intersections with North Washington Street/Columbia Way and School Street are currently operating at unacceptable AM and PM peak hour LOS “E/F” conditions. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is currently met at this intersection under AM and PM peak hour conditions.

Mitigation: Delay at these intersections is projected to decrease with the construction of the planned Greenley Road Extension (listed in TCTC’s list of Capital Improvement Projects). However, while the SR 49 (North Washington Street)/SR 49 intersection with School Street is projected to operate at acceptable AM and PM peak hour LOS conditions with the construction of the Greenley Extension, the SR 49 (North Washington Street)/SR 49 intersection with North Washington Street/Columbia Way intersection is still projected to operate at unacceptable peak hour LOS conditions.

A feasible improvement measure for this intersection is to install a traffic signal at the SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way intersection. With the recommended improvements in place, the SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way intersection is projected to operate at acceptable AM and PM peak hour LOS “A” conditions.

Another feasible improvement measure is to construct a roundabout at both intersections 19 and 20. With this proposed CIP, the SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way and School Street intersection is projected to operate at acceptable AM and PM peak hour LOS “B” or better conditions.

Intx – 23. South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road):

Impact: The South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection is currently operating at unacceptable AM and PM peak hour average intersection LOS “E” conditions.

Mitigation: Delay at this intersection is projected to decrease with the construction of the planned Greenley Road Bypass (listed in TCTC’s list of Capital Improvement Projects). As a result, the South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection is projected to operate at acceptable LOS “D” or better conditions with the above planned bypass.

Intx – 24. South Washington Street and Church Street:

Impact: The South Washington Street and Church Street intersection is currently operating at unacceptable PM peak hour LOS “E” conditions. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is currently met at this intersection under PM peak hour conditions.

Mitigation: A feasible improvement measure for this intersection is to install a traffic signal. However, due to the close proximity to another signalized intersection, installation of a traffic signal may not be possible. With the recommended signal improvement in place, the South Washington Street and Church Street intersection is projected to operate at acceptable AM and PM peak hour LOS “A” conditions.

Another feasible improvement measure is to restrict the westbound approach to right-turn-only during peak hours. The eastbound approach is currently restricted to right-turn-only during peak hours. Changing the westbound approach to right-turn-only would be possible due to the very low westbound left-turn and through movements. With the westbound right-turn-only improvements in place, the South Washington Street and Church Street intersection is projected to operate at acceptable AM and PM peak hour LOS “C” or better conditions for the worst case movement.

Intx – 38. Woodham Carne Road/Black Oak Road and Tuolumne Road:

Impact: The Woodham Carne Road/Black Oak Road and Tuolumne Road intersection is currently operating at unacceptable AM peak hour LOS “E” conditions for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is currently not met at this intersection under AM and PM peak hour conditions.

Mitigation: Signalization of the Woodham Carne Road/Black Oak Road and Tuolumne Road intersection is listed in TCTC’s list of long-range capital improvement projects. In this study, the long-range capital improvement projects are not assumed to be complete until year 2040. In order to achieve acceptable LOS under Existing conditions, a feasible option is to signalize the Woodham Carne Road/Black Oak Road and Tuolumne Road intersection sooner than the currently planned 2040. With this improvement in place, the Woodham Carne Road/Black Oak Road and Tuolumne Road intersection is projected to operate at acceptable AM and PM peak hour LOS “B” or better conditions.

Intx – 39. Tuolumne Road and Soulsbyville Road:

Impact: The Tuolumne Road and Soulsbyville Road intersection is currently operating at unacceptable AM peak hour LOS “F” conditions for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is currently met at this intersection under AM peak hour conditions.

Mitigation: A feasible improvement measure for this intersection is to construct a two-way left-turn median on Tuolumne Road, allowing the southbound left movement to have two-stage gap-acceptance. With the recommended two-way left-turn median improvement, the Tuolumne Road

and Soulsbyville Road intersection is projected to operate at acceptable AM and PM peak hour LOS “D” or better conditions for the worst-case movement.

Since MUTCD Signal Warrant #3 is met for this intersection, another feasible improvement measure for this intersection is to install a signal. With the recommended signalization improvement, the Tuolumne Road and Soulsbyville Road intersection is projected to operate at acceptable AM and PM peak hour LOS “C” or better conditions.

Individual Turning Movements:

A number of study intersections are currently operating at acceptable LOS “D” or better under Existing conditions, but contain at least one individual movement operating at an unacceptable LOS. The following list summarizes each intersection operating acceptably under Existing conditions, that intersection’s failing movement(s) for both AM and PM peak hours, and the recommended improvements that may alleviate that movement’s unacceptable LOS. A detailed list of the below intersections can be found in **Appendix Table 9**.

- **Intx – 27. Lime Kiln Road / South Washington Street and SR 108:**
 - Movement(s) Operating Unacceptably: Southbound Through.
 - Recommended Improvements / Mitigation: This intersection is planned to be improved (according to TCTC’s current list of mid-range capital improvement projects). The planned improvement is to add a southbound left-turn lane and dedicated southbound right-turn lane (Year 2030 Planned Improvement Project). With this planned improvement in place, the formerly deficient turning movement is projected to operate at acceptable LOS “D” or better conditions.

ROADWAY SEGMENTS

Rdwy – 24. SR 49 between Bell Mooney Road and South Junction Main Street:

Impact: The segment of SR 49 between Bell Mooney Road and South Junction Main Street is currently operating at unacceptable ADT-based LOS “E” conditions.

Mitigation: The segment of SR 49 between Bell Mooney Road and South Junction Main Street is currently planned to be widened to five lanes (according to TCTC’s current list of mid-range capital improvement projects). With this planned improvement in place, the segment of SR 49 between Bell Mooney Road and South Junction Main Street is projected to operate at acceptable LOS “B” or better conditions.

Rdwy – 27. SR 49 between Fifth Avenue and East Junction SR 108:

Impact: The segment of SR 49 between Fifth Avenue and East Junction SR 108 is currently operating at unacceptable ADT-based LOS “E” conditions.

Mitigation: The segment of SR 49 between Fifth Avenue and East Junction SR 108 is currently planned to be widened to five lanes (according to TCTC’s current list of mid-range capital improvement projects). With this planned improvement in place, the segment of SR 49 between Fifth Avenue and East Junction SR 108 is projected to operate at acceptable LOS “B” or better conditions.

Rdwy – 31. SR 49 between Stockton Road and Dodge Street:

Impact: The segment of SR 49 between Stockton Road and Dodge Street is currently operating at unacceptable ADT-based LOS “E” conditions.

Mitigation: Traffic volumes on the segment of SR 49 between Stockton Road and Dodge Street are projected to decrease with the construction of the proposed Greenley Road Bypass (listed in TCTC’s list of Capital Improvement Projects); however, the projected decrease is not substantial enough for

the segment of SR 49 between Stockton Road and Dodge Street to operate at acceptable AM and PM peak hour LOS conditions.

A feasible improvement measure for this roadway segment is to construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road and may reduce traffic on this segment of SR 49.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

Rdwy – 32. SR 49 north of Dodge Street:

Impact: The segment of SR 49 north of Dodge Street is currently operating at unacceptable ADT-based LOS “E” conditions.

Mitigation: Traffic volumes on the segment of SR 49 north of Dodge Street are projected to decrease with the construction of the proposed Greenley Road Bypass (listed in TCTC’s list of Capital Improvement Projects). As a result, the segment of SR 49 north of Dodge Street is projected to operate at acceptable LOS “D” or better conditions with the above planned bypass.

Rdwy – 33. SR 49 south of North Washington Street / Columbia Way:

Impact: The segment of SR 49 south of North Washington Street / Columbia Way is currently operating at unacceptable ADT-based LOS “E” conditions.

Mitigation: Traffic volumes on the segment of SR 49 south of North Washington Street / Columbia Way are projected to decrease with the construction of the proposed Greenley Road Bypass (listed in TCTC’s list of Capital Improvement Projects). As a result, the segment of SR 49 south of North Washington Street / Columbia Way is projected to operate at acceptable LOS “D” or better conditions with the above planned bypass.

Rdwy – 52. Mono Way west of Sanguinetti Road:

Impact: The segment of Mono Way west of Sanguinetti Road is currently operating at unacceptable ADT-based LOS “E” conditions.

Mitigation: Traffic volumes on the segment of Mono Way west of Sanguinetti Road are projected to decrease with the construction of the proposed Greenley Road Bypass (listed in TCTC’s list of Capital Improvement Projects); however, the projected decrease is not substantial enough for the segment of Mono Way west of Sanguinetti Road to operate at acceptable AM and PM peak hour LOS conditions.

A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2 that would extend Fir Drive from Mono Way to the Greenly Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

Rdwy – 116. South Washington Street between Restano Way and Church Street:

Impact: The segment of South Washington Street between Restano Way and Church Street is currently operating at unacceptable ADT-based LOS “E” conditions.

Mitigation: Traffic volumes on the segment of South Washington Street between Restano Way and Church Street are projected to decrease with the construction of the proposed Greenley Road Bypass (listed in TCTC’s list of Capital Improvement Projects); however, the projected decrease is not substantial enough for the segment of South Washington Street between Restano Way and Church Street to operate at acceptable AM and PM peak hour LOS conditions.

A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2 that would extend Fir Drive from Mono Way to the Greenly Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

YEAR 2030 CONDITIONS

The Traffic Study Report is a planning level analysis that quantifies existing and future traffic conditions with proposed improvements. The forecasted LOS traffic impacts and associated improvements will be reconsidered on a project by project basis with a thorough operational analysis.

INTERSECTIONS

Intx – 13. Parrotts Ferry Road and Sawmill Flat Road:

Impact: The Parrotts Ferry Road and Sawmill Flat Road intersection is projected to operate at unacceptable year 2030 AM and PM peak hour LOS “F” conditions under all alternative growth scenarios for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2030 AM and PM peak hour conditions under all alternative growth scenarios.

Mitigation: Signalization of the Parrotts Ferry Road and Sawmill Flat Road intersection is listed in TCTC’s list of long-range capital improvement projects. In this study, the long-range capital improvement projects are not assumed to be complete until year 2040. In order to achieve acceptable LOS under year 2030 conditions, it is recommended that the Parrotts Ferry Road and Sawmill Flat Road intersection be signalized by year 2030. With the recommended improvements in place, Parrotts Ferry Road and Sawmill Flat Road intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS “B” or better conditions under all alternative growth scenarios.

Intx – 19. SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way:

Impact: The SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way intersection is projected to operate at unacceptable year 2030 AM and PM peak hour LOS “E/F” conditions under all alternative growth scenarios for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2030 AM and PM peak hour conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this intersection is to install a traffic signal. With the recommended improvements in place, the SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS “A” conditions under all alternative growth scenarios.

Another feasible improvement measure is to construct a roundabout at this intersection. With the proposed improvement, the SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way intersection is projected to operate at acceptable AM and PM peak hour LOS “B” or better conditions.

Intx – 24. South Washington Street and Church Street:

Impact: The South Washington Street and Church Street intersection is projected to operate at unacceptable year 2030 AM and PM peak hour LOS “E” and “F” conditions, respectively, under all alternative growth scenarios. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2030 PM peak hour conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this intersection is to install a traffic signal. However, due to the close proximity to another signalized intersection, installation of a traffic signal may not be possible. With the recommended signal improvement in place, the South Washington Street and Church Street intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS "A" conditions under all alternative growth scenarios.

Another feasible improvement measure is to restrict the westbound approach to right-turn-only during peak hours. The eastbound approach is currently restricted to right-turn-only during peak hours. Changing the westbound approach to right-turn-only would be possible due to the very low westbound left-turn and through movements. With the westbound right-turn-only improvements in place, the South Washington Street and Church Street intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS "C" conditions under all alternative growth scenarios for the worst case movement.

Intx – 38. Woodham Carne Road/Black Oak Road and Tuolumne Road:

Impact: The Woodham Carne Road/Black Oak Road and Tuolumne Road intersection is projected to operate at unacceptable year 2030 AM and PM peak hour LOS "E/F" conditions under all alternative growth scenarios for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2030 AM and PM peak hour conditions under all alternative growth scenarios.

Mitigation: Signalization of the Woodham Carne Road/Black Oak Road and Tuolumne Road intersection is listed in TCTC's list of long-range capital improvement projects. In this study, the long-range capital improvement projects are not assumed to be complete until year 2040. In order to achieve acceptable LOS under year 2030 conditions, it is recommended that the Woodham Carne Road/Black Oak Road and Tuolumne Road intersection be signalized by year 2030. With the recommended improvements in place, Woodham Carne Road/Black Oak Road and Tuolumne Road intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS "B" or better conditions under all alternative growth scenarios.

Intx – 39. Tuolumne Road and Soulsbyville Road:

Impact: The Tuolumne Road and Soulsbyville Road intersection is projected to operate at unacceptable year 2030 AM peak hour LOS "F" conditions under all alternative growth scenarios for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2030 AM and PM peak hour conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this intersection is to construct a two-way left-turn median on Tuolumne Road, allowing the southbound left movement to have two-stage gap-acceptance. With the recommended two-way left-turn median improvement, the Tuolumne Road and Soulsbyville Road intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS "D" or better conditions under all alternative growth scenarios for the worst-case movement.

Since MUTCD Signal Warrant #3 is met for this intersection, another feasible improvement measure for this intersection is to install a signal. With the recommended signalization improvement, the Tuolumne Road and Soulsbyville Road intersection is projected to operate at acceptable year 2030 AM and PM peak hour LOS "C" or better conditions under all alternative growth scenarios.

Individual Turning Movements:

A number of study intersections are currently operating at acceptable LOS "D" or better under Year 2030 conditions, but contain at least one individual movement operating at an unacceptable LOS. The following list summarizes each intersection operating acceptably under Year 2030 conditions, that intersection's failing movement(s) for both AM and PM peak hours, and the recommended

improvements that may alleviate that movement's unacceptable LOS. A detailed list of the below intersections can be found in **Appendix Table 9**.

- **Intx – 9. 5th Avenue and SR 49-SR 108:**
 - Movement(s) Operating Unacceptably: Westbound Left.
 - Recommended Improvements / Mitigation: Protected eastbound and westbound left-turn.
- **Intx – 23. South Washington Street / SR 49 (South Washington Street) and SR 49 (Stockton Road):**
 - Movement(s) Operating Unacceptably: Northbound Left, Southbound Through.
 - Recommended Improvements / Mitigation: Add northbound left-turn lane, southbound right-turn lane, overlap eastbound right-turn.
- **Intx – 28. Greenley Road and Lyons Bald Mountain Road:**
 - Movement(s) Operating Unacceptably: Westbound Left.
 - Recommended Improvements / Mitigation: Signal timing.
- **Intx – 29. Greenley Road and Morning Star Drive / Cabezut Road:**
 - Movement(s) Operating Unacceptably: Northbound Left, Southbound Left.
 - Recommended Improvements / Mitigation: Add northbound right-turn lane, overlap northbound right-turn and southbound right-turn.

ROADWAY SEGMENTS

Rdwy – 5. SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road:

Impact: The segment of SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road is projected to operate at unacceptable year 2030 ADT-based LOS “E” conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this roadway segment is to widen the segment to four lanes. With the recommended improvements in place, the segment of SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road is projected to operate at acceptable year 2030 ADT-based LOS “C” conditions under all alternative growth scenarios.

Rdwy – 31. SR 49 between Stockton Road and Dodge Street:

Impact: The segment of SR 49 between Stockton Road and Dodge Street is projected to operate at unacceptable year 2030 ADT-based LOS “E” conditions under all alternative growth scenarios.

Mitigation: Construction of the North-South Connector Phase 2 (Fir Drive Extension) that would extend Fir Drive from Mono Way to the Greenley Road Extension, intersecting with Cabezut Road and Lyons Bald Mountain Road in between, may reduce traffic on this segment of SR 49 by up to 5%.

A feasible improvement measure for this roadway segment is to construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road and may reduce traffic on this segment of SR 49.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

Rdwy – 52. Mono Way west of Sanguinetti Road:

Impact: The segment of Mono Way west of Sanguinetti Road is projected to operate at unacceptable year 2030 ADT-based LOS “E” conditions under the Distinctive Communities (Proposed) and Public Services (Proposed) alternative growth scenarios. Note that the projected Year 2030 AADT volumes for this segment are very close to the LOS “D/E” border for a 2-Lane Principal/Minor Arterial (with left-turn lane) under all four alternative growth scenarios.

Mitigation: Traffic volumes on the segment of Mono Way west of Sanguinetti Road are projected to decrease with the construction of the proposed Greenley Road Bypass (listed in TCTC’s list of Capital Improvement Projects); however, the projected decrease is not substantial enough for the segment of Mono Way west of Sanguinetti Road to operate at acceptable AM and PM peak hour LOS conditions.

A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2 that would extend Fir Drive from Mono Way to the Greenly Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

Rdwy – 77. Tuolumne Road between Mono Way and Lambert Lake Road:

Impact: The segment of Tuolumne Road between Mono Way and Lambert Lake Road is projected to operate at unacceptable year 2030 ADT-based LOS “E” conditions under the Public Services (Proposed) and Recent Trends (Existing) alternative growth scenarios. Note that the projected Year 2030 AADT volumes for this segment are very close to the LOS “D/E” border for a 2-Lane Major/Minor Collector (with left-turn lane) under all four alternative growth scenarios.

Mitigation: The segment of Tuolumne Road between Mono Way and Lambert Lake Road is currently planned to be widened to five lanes (according to TCTC’s current list of mid-range capital improvement projects). With this planned improvement in place, the segment of Tuolumne Road between Mono Way and Lambert Lake Road is projected to operate at acceptable LOS “A” conditions.

Rdwy – 116. South Washington Street between Restano Way and Church Street:

Impact: The segment of South Washington Street between Restano Way and Church Street is projected to operate at unacceptable year 2030 ADT-based LOS “E” conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2 that would extend Fir Drive from Mono Way to the Greenly Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

YEAR 2040 CONDITIONS

“The Traffic Study Report is a planning level analysis that quantifies existing and future traffic conditions with proposed improvements. The forecasted LOS traffic impacts and associated improvements will be reconsidered on a project by project basis with a thorough operational analysis.”

INTERSECTIONS

Intx – 12. Shaws Flat Road and SR 49:

Impact: The Shaws Flat Road and SR 49 intersection is projected to operate at unacceptable year 2040 PM peak hour LOS “E” conditions under the Recent Trends (Existing) growth scenario for the worst-case movement.

Mitigation: A feasible improvement measure for this intersection is construction of a westbound left-turn pocket. With the recommended improvements in place, the Shaws Flat Road and SR 49 intersection is projected to operate at acceptable year 2040 PM peak hour LOS “D” or better conditions under all alternative growth scenarios.

Intx – 19. SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way:

Impact: The SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way intersection is projected to operate at unacceptable year 2040 AM and PM peak hour LOS “E/F” conditions under all alternative growth scenarios for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2040 AM and PM peak hour conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this intersection is to install a traffic signal. With the recommended improvements in place, the SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS “A” conditions under all alternative growth scenarios.

Another feasible improvement measure is to construct a roundabout at this intersection. With the proposed improvement, the SR 49 (North Washington Street)/SR 49 and North Washington Street/Columbia Way intersection is projected to operate at acceptable AM and PM peak hour LOS “B” or better conditions.

Intx – 23. South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road):

Impact: The South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection is projected to operate at unacceptable year 2040 AM peak hour average intersection LOS “E” conditions under the Distinctive Communities (Proposed), Public Services (Proposed), and Recent Trends (Existing) scenarios. Note that the intersection is operating within a second of the LOS “D/E” border under Recent Trends (Proposed) AM peak hour conditions. The northbound left-turn and southbound through movements are projected to operate below LOS “D” conditions under Recent Trends (Proposed) Year 2040 AM and PM peak hour conditions.

Mitigation: A feasible improvement measure for this intersection is to construct a southbound right turn pocket. With the recommended improvements in place, the South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS “D” conditions under all alternative growth scenarios. The north leg of this intersection appears to have been constructed to its ultimate configuration with buildings, sidewalk, etc. on both east and west sides of the leg. Addition of the recommended southbound right-turn lane may not be implementable due to right-of-way and current buildings. This intersection may continue to operate at unacceptable LOS until other feasible mitigations have been investigated and implemented.

Another feasible improvement measure for this roadway segment is to construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road and may reduce traffic on this segment of SR 49.

Another feasible improvement measure would be to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

Intx – 24. South Washington Street and Church Street:

Impact: The South Washington Street and Church Street intersection is projected to operate at unacceptable year 2040 AM and PM peak hour LOS “F” conditions under all alternative growth scenarios. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2030 PM peak hour conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this intersection is to install a traffic signal. However, due to the close proximity to another signalized intersection, installation of a traffic signal may not be possible. With the recommended signal improvement in place, the South Washington Street and Church Street intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS “A” conditions under all alternative growth scenarios.

Another feasible improvement measure is to restrict the westbound approach to right-turn-only during peak hours. The eastbound approach is currently restricted to right-turn-only during peak hours. Changing the westbound approach to right-turn-only would be possible due to the very low westbound left-turn and through movements. With the westbound right-turn-only improvements in place, the South Washington Street and Church Street intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS “C” conditions under all alternative growth scenarios for the worst case movement.

Intx – 39. Tuolumne Road and Soulsbyville Road:

Impact: The Tuolumne Road and Soulsbyville Road intersection is projected to operate at unacceptable year 2040 AM peak hour LOS “F” conditions under all alternative growth scenarios for the worst-case movement. California MUTCD based traffic signal Peak Hour Warrant 3 (70% Factor) is projected to be met at this intersection under year 2030 AM and PM peak hour conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this intersection is to construct a two-way left-turn median on Tuolumne Road, allowing the southbound left movement to have two-stage gap-acceptance. With the recommended two-way left-turn median improvement, the Tuolumne Road and Soulsbyville Road intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS “D” or better conditions under all alternative growth scenarios for the worst-case movement.

Since MUTCD Signal Warrant #3 is met for this intersection, another feasible improvement measure for this intersection is to install a signal. With the recommended signalization improvement, the Tuolumne Road and Soulsbyville Road intersection is projected to operate at acceptable year 2040 AM and PM peak hour LOS “C” or better conditions under all alternative growth scenarios.

Individual Turning Movements:

A number of study intersections are currently operating at acceptable LOS “D” or better under Year 2040 conditions, but contain at least one individual movement operating at an unacceptable LOS. The following list summarizes each intersection operating acceptably under Year 2040 conditions, that intersection’s failing movement(s) for both AM and PM peak hours, and the recommended improvements that may alleviate that movement’s unacceptable LOS. A detailed list of the below intersections can be found in **Appendix Table 9**.

- **Intx – 9, 5th Avenue and SR 49-SR 108:**
 - **Movement(s) Operating Unacceptably:** Westbound Left.
 - **Recommended Improvements / Mitigation:** Protected eastbound and westbound left-turn.

- **Intx – 28. Greenley Road and Lyons Bald Mountain Road:**
 - Movement(s) Operating Unacceptably: Westbound Left.
 - Recommended Improvements / Mitigation: Signal timing.
- **Intx – 29. Greenley Road and Morning Star Drive / Cabezut Road:**
 - Movement(s) Operating Unacceptably: Northbound Left, Northbound Through, Southbound Left.
 - Recommended Improvements / Mitigation: Add northbound right-turn lane, overlap northbound right-turn and southbound right-turn.
- **Intx – 30. Greenley Road and Mono Way:**
 - Movement(s) Operating Unacceptably: Southbound Left, Southbound Through.
 - Recommended Improvements / Mitigation: Add westbound right-turn lane.

ROADWAY SEGMENTS

Rdwy – 5. SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road:

Impact: The segment of SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road is projected to operate at unacceptable year 2040 ADT-based LOS “E” conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this roadway segment is to widen the segment to four lanes. With the recommended improvements in place, the segment of SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road is projected to operate at acceptable year 2040 ADT-based LOS “C” conditions under all alternative growth scenarios.

Rdwy – 31. SR 49 between Stockton Road and Dodge Street:

Impact: The segment of SR 49 between Stockton Road and Dodge Street is projected to operate at unacceptable year 2040 ADT-based LOS “E” conditions under all alternative growth scenarios.

Mitigation: Construction of the North-South Connector Phase 2 (Fir Drive Extension) that would extend Fir Drive from Mono Way to the Greenley Road Extension, intersecting with Cabezut Road and Lyons Bald Mountain Road in between, may reduce traffic on this segment of SR 49 by up to 5%.

Another feasible improvement measure for this roadway segment is to construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road and may reduce traffic on this segment of SR 49.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

Rdwy – 32. SR 49 north of Dodge Street:

Impact: The segment of SR 49 north of Dodge Street is projected to operate at unacceptable year 2040 ADT-based LOS “E” conditions under the Recent Trends (Existing) scenario. Note that the projected Year 2040 AADT volumes for this segment are very close to the LOS “D/E” border for a 2-Lane Principal/Minor Arterial (no left-turn lane) under all four alternative growth scenarios.

Mitigation: A feasible improvement measure for this roadway segment is to construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road and may reduce traffic on this segment of SR 49.

Another feasible improvement measure is to improve alternative modes of transportation along this

roadway segment, such as transit service or bicycle and pedestrian infrastructure.

Rdwy – 52. Mono Way west of Sanguinetti Road:

Impact: The segment of Mono Way west of Sanguinetti Road is projected to operate at unacceptable year 2040 ADT-based LOS “E” conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2 that would extend Fir Drive from Mono Way to the Greenly Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

Rdwy – 62. Parrotts Ferry Road between SR 49 and Sawmill Flat Road:

Impact: The segment of Parrotts Ferry Road between SR 49 and Sawmill Flat Road is projected to operate at unacceptable year 2040 ADT-based LOS “E” conditions under the Recent Trends (Existing) and Recent Trends (Proposed) alternative growth scenarios. Note that the projected Year 2040 AADT volumes for this segment are very close to the LOS “D/E” border for a 2-Lane Major/Minor Collector (no left-turn lane) under all four alternative growth scenarios.

Mitigation: A feasible improvement measure for this roadway segment is to add a two-way left-turn median. With the recommended improvements in place, the segment of Mono Way west of Sanguinetti Road is projected to operate at acceptable year 2040 ADT-based LOS “D” conditions under all alternative growth scenarios.

Another feasible improvement measure is to widen Parrotts Ferry Road to five lanes from SR 49 to Sawmill Flat Road.

Rdwy – 69. Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive:

Impact: The segment of Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive is projected to operate at unacceptable year 2040 ADT-based LOS “E” conditions under all alternative growth scenarios.

Mitigation: One feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2 (Fir Drive Extension) that would extend Fir Drive from Mono Way to the Greenley Road Extension, intersecting with Cabezut Road and Lyons Bald Mountain Road in between. With the construction of the North-South Connector Phase 2, traffic volumes on this segment of Greenley Road are projected to decrease by approximately 20%, and this segment of Greenley Road is projected to operate at acceptable year 2040 ADT-based LOS “D” or better conditions under all alternative growth scenarios.

Another feasible improvement measure for this roadway segment is to improve the segment to a 2-Lane Principal/Minor Arterial (with left-turn lane). With the recommended improvements in place, the segment of Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive is projected to operate at acceptable year 2040 ADT-based LOS “D” conditions under all alternative growth scenarios.

Another feasible improvement measure is to construct the Cabezut Road Extension from the Fir Drive Road Extension to Phoenix Lake Road, which may reduce volumes on this segment of Greenley Road.

Rdwy – 116. South Washington Street between Restano Way and Church Street:

Impact: The segment of South Washington Street between Restano Way and Church Street is

projected to operate at unacceptable year 2040 ADT-based LOS “E” conditions under all alternative growth scenarios.

Mitigation: A feasible improvement measure for this roadway segment is to construct the North-South Connector Phase 2 that would extend Fir Drive from Mono Way to the Greenly Road Extension, which may reduce traffic on this segment of Mono Way.

Another feasible improvement measure is to improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

FUTURE YEAR IMPACTS ON PUBLIC TRANSIT AND NON-MOTORIZED MODES

Pedestrian and Bicycle Impacts:

Tuolumne County’s RTP includes complete streets capital improvements in the City of Sonora and Tuolumne County. The RTP listed compete streets projects include, but are not limited to, the capital improvement projects listed in **Appendix Table 12**.

Future year alternative growth scenario conditions are not projected to have any significant impacts on Tuolumne County’s existing plus planned projects pedestrian and bicycle system.

Public Transit Impacts:

Tuolumne County’s RTP includes transit stop improvements in the City of Sonora and Tuolumne County. The RTP listed transit stop projects include, but are not limited to, the capital improvement projects listed in **Appendix Table 13**Error! Reference source not found..

Future year alternative growth scenario conditions are not projected to have any significant impacts on Tuolumne County’s existing transit system.

ACCIDENT DATA ANALYSIS

Wood Rodgers reviewed available TSAR traffic accident data records and TASAS accident data summaries provided by Caltrans District 10 for the most recent three-year data period (April 1, 2010 through March 31, 2013) for segments of SR 49, SR 108, and SR 120 in the study area. The data is summarized in **Table 17**.

Table 17. Study Area Accident Data Summary

Segment Location (Post Mile)	Number of Accidents							Persons		Actual Accident Rates (# of accidents/ MVM)			Average Accident Rates (# of accidents/ MVM)		
	Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark	Kld	Inj	Fat	F+I	Tot	Fat	F+I	Tot
SR 49															
PM 0.000 to PM 6.467 (Cnty Line to S Jctn 120)	23	0	15	15	7	2	4	0	21	0.000	2.92	4.48	0.043	0.98	1.96
PM 8.779 to PM 11.586 (N Jctn 120 to W Jctn 108)	12	1	5	6	5	4	3	1	8	0.076	0.46	0.91	0.018	0.30	0.68
PM 11.587 to PM 16.479 (W Jctn 108 to E Jctn 108)	102	1	44	45	80	9	18	1	60	0.011	0.48	1.08	0.015	0.47	1.12
PM 16.480 to PM 17.964 (E Jctn 108 to S Washington)	50	0	13	13	40	2	11	0	22	0.000	0.61	2.33	0.017	0.75	1.90
PM 17.965 to PM 18.489 (S Washington to Columbia)	64	0	15	15	57	2	5	0	27	0.000	1.44	6.15	0.018	0.83	2.21
PM 18.490 to PM 20.349 (Columbia to Parrotts Ferry)	44	0	15	15	29	6	4	0	22	0.000	0.51	1.50	0.016	0.61	1.46
PM 20.350 to PM 27.520 (Parrotts Ferry to Cnty Line)	40	0	20	20	13	8	8	0	24	0.000	0.48	0.96	0.028	0.66	1.38
SR 108															
PM 0.000 to PM 2.789 (E 120 Jctn to W 49 Jctn)	20	1	14	15	14	4	4	1	24	0.022	0.32	0.43	0.017	0.21	0.51
PM 0.000 to PM 4.199 (W Jctn 49 to Peaceful Oak)	44	0	19	19	25	5	15	0	26	0.000	0.22	0.50	0.019	0.43	0.97
PM 5.623 to PM 11.751 Peaceful Oak to Twain Harte)	67	4	28	32	33	4	19	4	60	0.068	0.55	1.14	0.009	0.30	0.74
PM 11.752 to PM 66.971 (Twain Harte to Cnty Line)	129	0	61	61	37	4	25	0	72	0.000	0.40	0.85	0.033	0.75	1.55
SR 120															
Combined PM 0.00 to PM 12.077 (Cnty Line to Jctn 108)	85	1	38	39	30	22	25	3	58	0.005	0.18	0.40	0.010	0.19	0.47
PM 12.077 to PM 15.515 (Jctn 108 to N Jctn 49)	17	0	8	8	11	1	3	0	13	0.000	0.79	1.67	0.027	0.59	1.26
PM 15.516 to PM 23.896 (N Jctn 49 to S Jctn 49)	23	1	12	13	9	0	4	1	20	0.027	0.35	0.63	0.017	0.24	0.56
PM 23.897 to PM 56.509 (S Jctn 49 to Yosemite Park)	114	3	52	55	42	7	25	4	80	0.021	0.39	0.80	0.027	0.51	1.11
Note: MVM = Million Vehicle Miles, PM = Post Mile, Fat = Fatalities, Inj = Injuries, Veh = Vehicle, Kld = Killed, F+I = Fatalities + Injuries, Tot = Total															
Source: Caltrans District 10															

As shown in **Table 17**, for SR 49, actual accident rates are less than that of average accident rates for “fatal” accidents for all segments with the exception of the segment of PM 8.779 to PM 11.586. The “total” actual accident rates for SR 49 are higher than total average accidents rates for all segments of SR 49 except those of PM 11.587 to PM 16.479 and PM 20.350 to PM 27.520. For SR 108, the actual accident rates for “fatal” and “fatal plus injury” are higher than that of average accident rates for segments of SR 108 between PM 0.000 to PM 2.789 and PM 5.623 to PM 11.751. Additionally, for the segment between PM 5.623 to PM 11.751, the “total” actual accident rate is higher than the total average accident rate. For SR 120, the “total” and “fatal plus injury” actual accident rates are higher than that of average accident rates for the segments between PM 12.077 to PM 15.515 and PM 15.516 to PM 23.896. The segment of SR 120 between PM 15.516 to PM 23.896 also has an actual accident rate for “fatal” accidents higher than the average accident rate. All actual accident rates for PM 23.897 to PM 56.509 on SR 120 are lower than the statewide average rates.

VEHICLE MILES TRAVELED (VMT)

Future year countywide Vehicle Miles Traveled (VMT) was estimated for each proposed alternative growth scenario using the recently updated Tuolumne County Travel Demand Model. The estimated VMTs are shown in **Table 18**.

Table 18. Vehicle Miles Traveled by Alternative Growth Scenario

Future Year	Alternative Growth Scenarios			
	Distinctive Communities (Proposed)	Public Services (Proposed)	Recent Trends (Existing)	Recent Trends (Proposed)
Year 2030 VMT	2,047,374	2,049,255	2,060,500	2,057,534
Year 2040 VMT	2,170,502	2,193,926	2,188,733	2,184,566

Note: VMT values estimated with Tuolumne County TDM

As shown in **Table 18**, the Distinctive Communities (Proposed) scenario is projected to produce the least countywide VMT under both year 2030 and year 2040 conditions. The Recent Trends (Existing) scenario is projected to produce slightly higher VMT under year 2030 conditions, approximately 0.6% more than the Distinctive Communities (Proposed) scenario. The Public Services (Proposed) scenario is projected to produce slightly higher VMT under year 2040 conditions, approximately 1.1% more than the Distinctive Communities (Proposed) scenario.

APPENDIX TABLES

Appendix Table 1 - Study Area Intersections

#	Study Intersection
1	SR 108-SR 120 & O'Byrnes Ferry Rd
2	SR 120 & SR 108-SR 120/SR 108
3	SR 49-SR 120/SR 120 & SR 49
4	SR 49 (Montezuma Rd) & SR 120/SR 49-SR 120
5	SR 49-SR 108 & Chicken Ranch Rd
6	SR 49-SR 108 & Main St
7	Humbug St/Rawhide Rd & SR 49-SR 108
8	Main St/Jamestown Rd & SR 49-SR 108
9	5th Ave & SR 49-SR 108
10	5th Ave & Jamestown Rd
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)
12	Shaws Flat Rd & SR 49
13	Parrotts Ferry Rd & Sawmill Flat Rd
14	SR 49 & Parrotts Ferry Rd (Columbia Jctn)
15	SR 49 (Stockton Rd) & S Forest Rd
16	Southgate Dr/Woods Creek Dr & SR 49 (Stockton Rd)
17	SR 49 (Stockton Rd) & W. Savemart Drwy
18	SR 49 (Stockton Rd) & E. Savemart Drwy
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way
20	SR 49 (N Washington St) & School St
21	SR 49 (N Washington St) & W Snell St/Elkin St
22	SR 49 (N Washington St) & Bradford St
23	S Washington St/SR 49 (S Washington St) & SR 49 (Stockton Rd)
24	S Washington St & Church St
25	Bulwer St/Restano Way
26	Mono Way/S Stewart St & Restano Way
27	Lime Kiln Rd/S Washington St & SR 108
28	Greenly Rd & Lyons Bald Mountain Rd
29	Greenly Rd & Morning Star Dr/Cabezut Rd
30	Greenly Rd & Mono Way
31	Old Wards Ferry Rd/Greenly Rd & Sanguinetti Rd
32	Tuolumne Rd & Mono Way
33	Jctn Shopping Cntr Dr & Mono Way
34	Tuolumne Rd & Jctn Shopping Cntr
35	Standard Rd/Peaceful Oak Rd & Mono Way
36	Draper Mine Rd/Cripple Hill Rd & SR 108 (Mono Way)
37	Soulsbyville Rd & SR 108 (Mono Way)
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd
39	Tuolumne Rd & Soulsbyville Rd
40	Tuolumne Rd/E Twaine Hart Dr & SR 108
41	SR 120 (Main St) & Ferretti Rd

Appendix Table 2 - Study Area Roadway Segments

#	Roadway Segment	#	Roadway Segment
1	SR 108 Corridor w/o Tulloch rd	63	Parrotts Ferry Road b/w Sawmill Flat Rd & Springfield Dr
2	SR 108 Corridor b/w O'Byrnes Ferry Rd & La Grange Rd	64	Parrotts Ferry Road n/o Springfield Dr
3	SR 108 Corridor b/w O'Byrnes Ferry Rd & SR 120	65	Parrotts Ferry Road s/o Calaveras County Line
4	SR 108 Corridor b/w East Jct SR 120 and West Jct SR 49	66	Fifth Avenue s/o SR 108 / 49
5	SR 108 Corridor b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	67	Fifth Avenue n/o SR 108 / 49
6	SR 108 Corridor w/o Mono Way	68	Greenley Road b/w Lyons Bald Mt Rd/Lyons Rd & Cabezut Rd
7	SR 108 Corridor b/w Mono Way and Hess Ave	69	Greenley Road b/w Cabezut Rd/ Morning Star Rd & Delnero Dr
8	SR 108 Corridor b/w Hess Ave and Peaceful Oak Rd	70	Greenley Road b/w Delnero Dr & Mono Way
9	SR 108 Corridor b/w Peaceful Oak Rd and Mono Way	71	La Grange Road b/w County Line & Bonds Flat Rd
11	SR 108 Corridor b/w Mono Way and Soulsbyville Rd	72	La Grange Road b/w Bonds Flat Rd & Red Hills Rd
12	SR 108 Corridor b/w Soulsbyville Rd and W Conn. Twain Harte Dr	73	La Grange Road b/w Red Hills Rd & SR 108-SR 120
13	SR 108 Corridor b/w W & E Conn Twain Harte Dr	74	Seco Street b/w Camp Seco Rd & 3rd Ave
14	SR 108 Corridor e/o East Conn. Twain Hart Rd	75	Seco Street b/w 3rd Ave & Main St
15	SR 108 Corridor w/o Chief Fuller Rd	76	Seco Street s/o Campo Seco Rd
16	SR 108 Corridor e/o Chief Fuller Rd	77	Tuolumne Road b/w Mono Way & Lambert lake Rd
17	SR 108 Corridor w/o West Long Barn Conn.	78	Tuolumne Road b/w Lambert Lake Rd & Hess Ave
18	SR 108 Corridor b/w West Long Barn Conn. and East Long Barn Conn.	79	Tuolumne Road b/w Hess Ave & Wards Ferry Rd
19	SR 108 Corridor b/w Kennedy Meadows Rd and Tuolumne/ Mono Countyline	80	Tuolumne Road b/w Wards Ferry Rd & Standard Rd
20	SR 49 Corridor n/o Tuolumne/Mariposa County Line	81	Tuolumne Road b/w Standard Rd & Woodhams Carne
21	SR 49 Corridor s/o South Jct SR 120	82	Tuolumne Road b/w Woodhams Carne & Cherokee Rd
22	SR 49 Corridor n/o North SR 120 Jct	83	Wards Ferry Road s/o Yosemite Rd
23	SR 49 Corridor b/w SR 49 (Montezuma Jct) & Bell Mooney Rd	84	Wards Ferry Road s/o Tuolumne Rd
24	SR 49 Corridor b/w Bell Mooney Rd and South Jct Main St	85	Twain Harte Drive n/o Hunts Rd
25	SR 49 Corridor b/w South Jct Main St and Rawhide Rd	86	Twain Harte Drive w/o East Ave
26	SR 49 Corridor b/w Rawhide Rd and Fifth Ave	87	Twain Harte Drive e/o Tiffeni Dr (eastern Most)
27	SR 49 Corridor b/w Fifth Ave and East Jct SR 108	88	Shaws Flat Road s/o SR 49
28	SR 49 Corridor btn SR 108 and Fairview Lane (Ponderosa)	89	Shaws Flat Road n/o SR 49
29	SR 49 Corridor b/w Fairview Lane and Southgate Dr	90	Jamestown Road s/o Shaws Flat Rd
30	SR 49 Corridor b/w Southgate Dr and Washington St	91	Jamestown Road s/o Racetrack Rd
31	SR 49 Corridor b/w Stockton Rd and Dodge St	92	Jamestown Road b/w Golf links & Fifth Ave
32	SR 49 Corridor n/o Dodge St	93	Rawhide Road n/o SR 49 & 108 (by the Bridge)
33	SR 49 Corridor s/o N Washington St / Columbia Way	94	Rawhide Road s/o SR 49 (near Tuttletown)
34	SR 49 Corridor n/o N Washington St / Columbia Way	95	Phoenix Lake Road e/o Creekside Dr
35	SR 49 Corridor e/o Parrotts Ferry Rd (Columbia WYE)	96	Phoenix Lake Road e/o Paseo de Los Portales
36	SR 49 Corridor w/o Parrotts Ferry Rd (Columbia WYE)	97	Phoenix Lake Road e/o Ridgewood
37	SR 49 Corridor e/o Rawhide Rd	98	Phoenix Lake Road e/o Hess Ave
38	SR 49 Corridor b/w Rawhide Rd and Turtletown	99	Phoenix Lake Road w/o Hess Ave
39	SR 49 Corridor b/w Tuttletown and Tuolumne / Calveras County Line	100	Old Wards Ferry Road s/o Sanguinetti Rd (n/o of Walmart & Lowes Driveway)
40	SR 120 Corridor b/w Tulloch Rd and La Grange Rd	101	Old Wards Ferry Road 1/4 mile s/o Sanguinetti Rd (over Highway 108)
42	SR 120 Corridor b/w East Jct 108 and North Jct SR 49	102	Old Wards Ferry Road s/o Jacobs Rd
43	SR 120 Corridor b/w North Jct SR 49 and Jacksonville Rd	103	Soulsbyville Road s/o Black Oak Dr
44	SR 120 Corridor b/w Jacksonville Rd and South Jct SR 49	104	Soulsbyville Road s/o Willow Springs Dr
45	SR 120 Corridor b/w South Jct SR 49 and Priest-Coulterville Rd	105	Soulsbyville Road n/o of SR 108
46	SR 120 Corridor w/o Ferretti Rd (Groveland Townsite)	106	Tuolumne Rd North b/w Tuolumne Rd & Black Oak Casino Entrance St
47	SR 120 Corridor e/o Ferretti Rd (Groveland Townsite)	107	Tuolumne Rd North n/o Mi Wu St
48	SR 120 Corridor w/o Hells Hollow Rd	108	Tuolumne Rd North n/o East Ave
49	SR 120 Corridor e/o Smiths Station Rd	109	O'Byrnes Ferry Rd n/o SR 108
50	SR 120 Corridor w/o Cherry Valley/Lake Rd	110	O'Byrnes Ferry Rd n/o Prison/Calaveras County Line
51	SR 120 Corridor w/o Yosemite Park West Boundary	111	Longeway Rd e/o Soulsbyville Rd
52	Mono Way w/o Sanguinetti Rd	112	Longeway Rd e/o Crystal Falls Dr
53	Mono Way b/W Sanguinetti Rd & Greenley Rd	113	Stewart St b/w Lyons St & Elkin St
54	Mono Way b/w Greenley Rd & Fir Dr	114	Stewart St b/w Mono wWay/Restano Way & Church St
55	Mono Way b/w Fir Dr & Tuolumne Rd	115	S Washington St n/o SR 108
56	Mono Way b/w Tuolumne Rd & Hess Ave	116	S Washington St b/w Restano Way & Church St
57	Mono Way b/w Hess Ave & Standard Rd / Peaceful Oak Dr	117	Sanguinetti Rd b/w Mono Way & S Greenley Rd (eb one-way)
58	Mono Way b/w Standard Rd/Peaceful Oak Dr & SR 108	118	Sanguinetti Rd b/w S Greenley Rd & Fir Dr
59	Standard Road b/w Tuolumne Rd & Mono Way	119	Sanguinetti Rd b/w Fir Dr & Mono Way
60	Cabezut Road b/w Greenly Rd and Shannon Dr	120	Peaceful Oak Dr n/o SR 108 Bypass
61	Cabezut Road e/o Shannon Dr	121	Peaceful Oak Dr b/w SR 108 Ramps
62	Parrotts Ferry Road b/w SR 49 & Sawmill Flat Rd	122	Peaceful Oak Dr b/w Mono Way and SR 108

Appendix Table 2 - Study Area Roadway Segments

#	Roadway Segment	#	Roadway Segment
123	Bell Mooney Rd, w/o Jacksonville Rd	138	Lime Kiln Rd, s/o Campo Seco Rd & SR 108
124	Big Hill Rd, b/w Sawmill Flat Rd & N Bald Mountain Rd	139	Lyons Bald Mt.Rd, e/o Greenley Rd
125	Black Oak Rd, n/o Tuolumne Rd	140	Lyons St, w/o Greenley Rd
126	Bonanza Rd, w/o Snell Rd	141	Main St (Jamestown), n/o Donovan St
127	Bonds Flat Rd, e/o La Grange Rd	142	Merrell Rd, s/o SR 120
128	Campo Seco Rd, e/o Seco Rd	143	Moringstar Dr, w/o Greenley Rd
129	Cherokee Rd, w/o Tuolumne Rd North	144	Old Priest Grade, 1/2 Mile e/o SR 120
130	Chicken Ranch Rd, w/o SR 108	145	Sawmill Flat Rd, e/o Parrots Ferry Rd
131	Draper Mine Rd, e/o SR 108 & SR 49	146	Smith Station Rd, s/o SR 120
132	East Ave, s/o Twain Harte Dr	147	Snell Rd-Racetrack Rd, n/o Bonanza Rd
133	Ferretti Road, s/o Pine Mt Dr	148	South Greenley Rd, b/w Mono Way & Sanguinetti Rd
134	Golf Links Rd, n/o SR 108	149	Springfield Rd, n/o Horseshoe Bend Rd
135	Hess Ave, b/w SR 108 & Mono Way	150	Woodhams Carne Rd, s/o Tuolumne Rd
136	Jacksonville Rd, s/o Twist Ave	151	Yankee Hill Rd, e/o Bigler St
137	Jacobs Rd, w/o Old Wards Ferry Rd	152	Willow Springs Dr, e/o Bonnie St

Appendix Table 3 - Existing Intersection LOS

No.	Intersection Name	Control	Urban / Rural	Min. LOS	AM Peak Hour		PM Peak Hour	
					Delay	LOS	Delay	LOS
1	SR 108-SR 120 & O'Byrnes Ferry Rd	Signal	Rural	D	8.0	A	8.7	A
2	SR 120 & SR 108-SR 120/SR 108	TWSC	Rural	D	13.4	B	17.0	C
3	SR 49-SR 120/SR 120 & SR 49	TWSC	Rural	D	9.3	A	9.8	A
4	SR 49 (Montezuma Rd) & SR 120/SR 49-SR 120	TWSC	Rural	D	20.3	C	24.7	C
5	SR 49-SR 108 & Chicken Ranch Rd	TWSC	Urban	D	24.5	C	47.2	E
6	SR 49-SR 108 & Main St	TWSC	Urban	D	14.2	B	17.4	C
7	Humbug St/Rawhide Rd & SR 49-SR 108	Signal	Urban	D	25.5	C	38.1	D
8	Main St/Jamestown Rd & SR 49-SR 108	TWSC	Urban	D	93.5	F	125.1	F
9	5th Ave & SR 49-SR 108	TWSC	Urban	D	232.2	F	429.6	F
10	5th Ave & Jamestown Rd	TWSC	Urban	D	9.5	A	9.7	A
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	TWSC	Urban	D	36.9	E	69.6	F
12	Shaws Flat Rd & SR 49	TWSC	Urban	D	14.9	B	17.7	C
13	Parrotts Ferry Rd & Sawmill Flat Rd	TWSC	Urban	D	41.0	E	54.3	F
14	SR 49 & Parrotts Ferry Rd (Columbia Jctn)	Signal	Urban	D	17.4	B	19.2	B
15	SR 49 (Stockton Rd) & S Forest Rd	TWSC	Urban	D	12.1	B	12.3	B
16	Southgate Dr/Woods Creek Dr & SR 49 (Stockton Rd)	TWSC	Urban	D	12.4	B	12.2	B
17	SR 49 (Stockton Rd) & W. Savemart Drwy	TWSC	Urban	D	9.6	A	10.3	B
18	SR 49 (Stockton Rd) & E. Savemart Drwy	TWSC	Urban	D	11.0	B	14.0	B
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	Urban	D	134.4	F	160.5	F
20	SR 49 (N Washington St) & School St	TWSC	Urban	D	43.5	E	44.1	E
21	SR 49 (N Washington St) & W Snell St/Elkin St	TWSC	Urban	D	20.9	C	22.6	C
22	SR 49 (N Washington St) & Bradford St	TWSC	Urban	D	28.6	D	30.0	D
23	S Washington St/SR 49 (S Washington St) & SR 49 (Stockton Rd)	Signal	Urban	D	63.1	E	58.1	E
24	S Washington St & Church St	TWSC	Urban	D	64.1	F	101.4	F
25	Bulwer St/Restano Way	Signal	Urban	D	10.8	B	10.7	B
26	Mono Way/S Stewart St & Restano Way	Signal	Urban	D	15.4	B	11.2	B
27	Lime Kiln Rd/S Washington St & SR 108	Signal	Urban	D	42.9*	D	33.5*	C
28	Greenly Rd & Lyons Bald Mountain Rd	AWSC	Urban	D	10.7	B	28.5	D
29	Greenly Rd & Morning Star Dr/Cabecuzt Rd	Signal	Urban	D	23.0	C	24.0	C
30	Greenly Rd & Mono Way	Signal	Urban	D	27.2	C	35.5	D
31	Old Wards Ferry Rd/Greenly Rd & Sanguinetti Rd	Signal	Urban	D	19.1	B	23.5	C
32	Tuolumne Rd & Mono Way	Signal	Urban	D	12.7	B	10.6	B
33	Jctn Shopping Cntr Dr & Mono Way	Signal	Urban	D	12.7	B	19.7	B
34	Tuolumne Rd & Jctn Shopping Cntr	Signal	Urban	D	9.4	A	16.6	B
35	Standard Rd/Peaceful Oak Rd & Mono Way	Signal	Urban	D	23.6	C	14.5	B
36	Draper Mine Rd/Cripple Hill Rd & SR 108 (Mono Way)	TWSC	Urban	D	27.9	D	20.3	C
37	Soulsbyville Rd & SR 108 (Mono Way)	Signal	Urban	D	11.5	B	9.8	A
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	TWSC	Rural	D	43.0	E	28.9	D
39	Tuolumne Rd & Soulsbyville Rd	TWSC	Rural	D	52.9	F	23.7	C
40	Tuolumne Rd/E Twaine Hart Dr & SR 108	TWSC	Urban	D	14.7	B	14.2	B
41	SR 120 (Main St) & Ferretti Rd	TWSC	Rural	D	12.0	B	16.0	C

Number of intersections operating under minimum acceptable LOS: 11

Notes: 1. For TWSC (Two-Way-Stop-Control) intersections, worst-case movement delay (in seconds/vehicle) are indicated. "Average" control delays (in seconds/vehicle) are indicated for AWSC (All-Way-Stop-Control) and Signal-Control intersections.

* = Although the intersection is operating at an "Average" LOS D or better, some movements of this intersection are operating below LOS D threshold. Those movements and their associated improvements are identified in a subsequent table.

Appendix Table 4 - Existing Roadway ADTs and LOS

#	Roadway Name	Roadway/Highway Segment	LOS Area Type	Roadway Type	LOS Type#	Minimum LOS Policy	Existing (2014) ADT	LOS*	Acceptable?
1	SR 108 Corridor	w/o Tulloch rd	Rolling	Rural Arterial (4-lane) Divided	1	D	11,200	B	Yes
2		b/w O'Byrnes Ferry Rd & La Grange Rd	Rolling	Rural Minor Arterial (2-lane)	4	D	15,300	D	Yes
3		b/w O'Byrnes Ferry Rd & SR 120	Rolling	Rural Minor Arterial (2-lane)	4	D	18,000	D	Yes
4		b/w East Jct SR 120 and West Jct SR 49	Rolling	Rural Minor Arterial (2-lane)	4	D	17,600	D	Yes
5		b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	Urban	Rural Minor Arterial (2-lane)	210	D	19,900	D	Yes
6		w/o Mono Way	Urban	2-Lane Freeway	204	D	20,500	D	Yes
7		b/w Mono Way and Hess Ave	Urban	2-Lane Freeway	204	D	20,800	D	Yes
8		b/w Hess Ave and Peaceful Oak Rd	Urban	2-Lane Freeway	204	D	15,700	C	Yes
9		b/w Peaceful Oak Rd and Mono Way	Urban	2-Lane Freeway	204	D	14,200	C	Yes
11		b/w Mono Way and Soulsbyville Rd	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	14,600	D	Yes
12		b/w Soulsbyville Rd and W Conn. Twain Harte Dr	Urban	4-Lane Divided Arterial (with left-turn lane)	208	D	8,100	A	Yes
13		b/w W & E Conn Twain Harte Dr	Urban	2-Lane Freeway + Auxiliary Lane	203	D	8,000	A	Yes
14		e/o East Conn. Twain Hart Rd	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	211	D	8,100	C	Yes
15		w/o Chief Fuller Rd	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	211	D	6,900	B	Yes
16		e/o Chief Fuller Rd	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	211	D	4,450	B	Yes
17		w/o West Long Barn Conn.	Rolling	Rural Minor Arterial (2-lane)	5	D	4,200	B	Yes
18		b/w West Long Barn Conn. and East Long Barn Conn.	Rolling	Rural Minor Arterial (2-lane)	5	D	5,100	B	Yes
19		b/w Kennedy Meadows Rd and Tuolumne/ Mono Countyline	Rolling	Rural Minor Arterial (2-lane)	5	D	790	A	Yes
20	SR 49 Corridor	n/o Tuolumne/Mariposa County Line	Rolling	Rural Minor Arterial (2-lane)	5	D	630	A	Yes
21		s/o South Jct SR 120	Rolling	Rural Minor Arterial (2-lane)	5	D	820	A	Yes
22		n/o North SR 120 Jct	Rolling	Rural Minor Arterial (2-lane)	5	D	1,550	A	Yes
23		b/w SR 49 (Montezuma Jct) & Bell Mooney Rd	Rolling	Rural Minor Arterial (2-lane)	4	D	18,600	D	Yes
24		b/w Bell Mooney Rd and South Jct Main St	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	211	D	19,300	E	No
25		b/w South Jct Main St and Rawhide Rd	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	19,300	D	Yes
26		b/w Rawhide Rd and Fifth Ave	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	19,700	D	Yes
27		b/w Fifth Ave and East Jct SR 108	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	23,500	E	No
28		btrn SR 108 and Fairview Lane (Ponderosa)	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	11,900	C	Yes
29		b/w Fairview Lane and Southgate Dr	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	10,700	C	Yes
30		b/w Southgate Dr and Washington St	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	10,900	C	Yes
31		b/w Stockton Rd and Dodge St	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	211	D	18,500	E	No
32		n/o Dodge St	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	211	D	19,400	E	No
33		s/o N Washington St / Columbia Way	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	211	D	16,100	E	No
34		n/o N Washington St / Columbia Way	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	15,400	D	Yes
35		e/o Parrotts Ferry Rd (Columbia WYE)	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	211	D	13,300	D	Yes
36		w/o Parrotts Ferry Rd (Columbia WYE)	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	211	D	5,050	B	Yes
37		e/o Rawhide Rd	Rolling	Rural Minor Arterial (2-lane)	5	D	5,500	B	Yes
38		b/w Rawhide Rd and Turtletown	Rolling	Rural Minor Arterial (2-lane)	5	D	4,550	B	Yes
39		b/w Turtletown and Tuolumne / Calveras County Line	Rolling	Rural Minor Arterial (2-lane)	5	D	5,600	B	Yes
40	SR 120 Corridor	b/w Tulloch Rd and La Grange Rd	Rolling	Rural Arterial (4-lane) Divided	1	D	11,600	B	Yes
42		b/w East Jct 108 and North Jct SR 49	Rolling	Rural Minor Arterial (2-lane)	5	D	2,700	A	Yes
43		b/w North Jct SR 49 and Jacksonville Rd	Rolling	Rural Minor Arterial (2-lane)	5	D	3,750	B	Yes
44		b/w Jacksonville Rd and South Jct SR 49	Rolling	Rural Minor Arterial (2-lane)	5	D	5,000	B	Yes
45		b/w South Jct SR 49 and Priest-Coulterville Rd	Rolling	Rural Minor Arterial (2-lane)	5	D	3,900	B	Yes
46		w/o Ferretti Rd (Groveland Townsite)	Rolling	Rural Minor Arterial (2-lane)	5	D	4,800	B	Yes
47		e/o Ferretti Rd (Groveland Townsite)	Rolling	Rural Minor Arterial (2-lane)	5	D	5,800	B	Yes

Appendix Table 4 - Existing Roadway ADTs and LOS

#	Roadway Name	Roadway/Highway Segment	LOS Area Type	Roadway Type	LOS Type#	Minimum LOS Policy	Existing (2014) ADT	LOS*	Acceptable?
48	SR 120 (Cont.)	w/o Hells Hollow Rd	Rolling	Rural Minor Arterial (2-lane)	5	D	4,850	B	Yes
49		e/o Smiths Station Rd	Rolling	Rural Minor Arterial (2-lane)	5	D	3,800	B	Yes
50		w/o Cherry Valley/Lake Rd	Rolling	Rural Minor Arterial (2-lane)	5	D	3,600	B	Yes
51		w/o Yosemite Park West Boundary	Rolling	Rural Minor Arterial (2-lane)	5	D	3,500	B	Yes
52	Mono Way	w/o Sanguinetti Rd	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	22,205	E	No
53		b/W Sanguinetti Rd & Greenley Rd	Urban	4-Lane Divided Arterial (with left-turn lane)	208	D	16,986	A	Yes
54		b/W Greenley Rd & Fir Dr	Urban	4-Lane Divided Arterial (with left-turn lane)	208	D	21,628	A	Yes
55		b/w Fir Dr & Tuolumne Rd	Urban	4-Lane Divided Arterial (with left-turn lane)	208	D	25,060	C	Yes
56		b/w Tuolumne Rd & Hess Ave	Urban	4-Lane Divided Arterial (with left-turn lane)	208	D	12,327	A	Yes
57		b/w Hess Ave & Standard Rd / Peaceful Oak Dr	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	210	D	12,076	C	Yes
58		b/w Standard Rd/Peaceful Oak Dr & SR 108	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	211	D	7,435	C	Yes
59	Standard Road	b/w Tuolumne Rd & Mono Way	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	3,391	B	Yes
60	Cabezut Road	b/w Greenly Rd and Shannon Dr	Urban	2-Lane Major/Minor Collector (with left-turn lane)	212	D	5,775	B	Yes
61		e/o Shannon Dr	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	260	A	Yes
62	Parrots Ferry Road	b/w SR 49 & Sawmill Flat Rd	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	213	D	11,100	D	Yes
63		b/w Sawmill Flat Rd & Springfield Dr	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	213	D	7,900	C	Yes
64		n/o Springfield Dr	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	213	D	8,066	C	Yes
65		s/o Calaveras County Line	Rolling	Rural Minor Arterial (2-lane)	5	D	4,071	B	Yes
66	Fifth Avenue	s/o SR 108 / 49	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	2,640	A	Yes
67		n/o SR 108 / 49	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	792	A	Yes
68	Greenley Road	b/w Lyons Bald Mt Rd/Lyons Rd & Cabezut Rd	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	212	D	5,868	B	Yes
69		b/w Cabezut Rd/ Morning Star Rd & Delnero Dr	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	212	D	11,332	C	Yes
70		b/w Delnero Dr & Mono Way	Urban	4-Lane Undivided Arterial (no left-turn lane)	209	D	15,317	A	Yes
71	La Grange Road	b/w County Line & Bonds Flat Rd	Rolling	Rural Minor Arterial (2-lane)	5	D	2,703	A	Yes
72		b/w Bonds Flat Rd & Red Hills Rd	Rolling	Rural Minor Arterial (2-lane)	5	D	2,868	A	Yes
73		b/w Red Hills Rd & SR 108-SR 120	Rolling	Rural Minor Arterial (2-lane)	5	D	2,399	A	Yes
74	Seco Street	b/w Camp Seco Rd & 3rd Ave	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,050	A	Yes
75		b/w 3rd Ave & Main St	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	2,902	B	Yes
76		s/o Campo Seco Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,036	A	Yes
77	Tuolumne Road	b/w Mono Way & Lambert lake Rd	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	212	D	15,203	D	Yes
78		b/w Lambert Lake Rd & Hess Ave	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	212	D	13,042	D	Yes
79		b/w Hess Ave & Wards Ferry Rd	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	212	D	12,283	D	Yes
80		b/w Wards Ferry Rd & Standard Rd	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	212	D	11,745	D	Yes
81		b/w Standard Rd & Woodhams Carne	Rolling	Major Collector (34 ft. - 36 ft.)	6	D	11,955	D	Yes
82		b/w Woodhams Carne & Cherokee Rd	Rolling	Major Collector (34 ft. - 36 ft.)	6	D	11,848	D	Yes
83	Wards Ferry Road	s/o Yosemite Rd	Rolling	Major/Minor Collector (18 ft.- 20 ft.)	9	D	2,399	B	Yes
84		s/o Tuolumne Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,799	A	Yes
85	Twain Harte Drive	n/o Hunts Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	3,642	B	Yes
86		w/o East Ave	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	4,466	B	Yes
87		e/o Tiffeni Dr (eastern Most)	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,914	A	Yes
88	Shaws Flat Road	s/o SR 49	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	3,057	B	Yes
89		n/o SR 49	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,989	A	Yes
90	Jamestown Road	s/o Shaws Flat Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	2,486	A	Yes
91		s/o Racetrack Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	3,134	B	Yes
92		b/w Golf links & Fifth Ave	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	2,798	B	Yes

Appendix Table 4 - Existing Roadway ADTs and LOS

#	Roadway Name	Roadway/Highway Segment	LOS Area Type	Roadway Type	LOS Type#	Minimum LOS Policy	Existing (2014) ADT	LOS*	Acceptable?
93	Rawhide Road	n/o SR 49 & 108 (by the Bridge)	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	4,149	B	Yes
94		s/o SR 49 (near Tuttletown)	Rolling	Major/Minor Collector (20 ft.- 23 ft.)	8	D	2,407	A	Yes
95	Phoenix Lake Road	e/o Creekside Dr	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	2,095	A	Yes
96		e/o Paseo de Los Portales	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	4,796	B	Yes
97		e/o Ridgewood	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	5,495	B	Yes
98		e/o Hess Ave	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	7,746	C	Yes
99		w/o Hess Ave	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	4,729	B	Yes
100	Old Wards Ferry Road	s/o Sanguinetti Rd (n/o of Walmart & Lowes Driveway)	Urban	4-Lane Undivided Arterial (no left-turn lane)	209	D	7,116	A	Yes
101		1/4 mile s/o Sanguinetti Rd (over Highway 108)	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	213	D	805	A	Yes
102		s/o Jacobs Rd	Rolling	Major/Minor Collector (20 ft.- 23 ft.)	8	D	502	A	Yes
103	Soulsbyville Road	s/o Black Oak Dr	Rolling	Major/Minor Collector (23 ft.- 32 ft.)	7	D	1,033	A	Yes
104		s/o Willow Springs Dr	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,817	A	Yes
105		n/o of SR 108	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	6,457	C	Yes
106	Tuolumne Rd North	b/w Tuolumne Rd & Black Oak Casino Entrance St	Rolling	Major Collector (34 ft.- 36 ft.)	6	D	6,436	B	Yes
107		n/o Mi Wu St	Rolling	Major/Minor Collector (23 ft.- 32 ft.)	7	D	2,391	A	Yes
108		n/o East Ave	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,436	A	Yes
109	O'Byrnes Ferry Rd	n/o SR 108	Rolling	Major/Minor Collector (23 ft.- 32 ft.)	7	D	5,998	C	Yes
110		n/o Prison/Calaveras County Line	Rolling	Major/Minor Collector (23 ft.- 32 ft.)	7	D	3,796	B	Yes
111	Longeway Rd	e/o Soulsbyville Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	8,050	C	Yes
112		e/o Crystal Falls Dr	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	4,283	B	Yes
113	Stewart St	b/w Lyons St & Elkin St	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	6,597	C	Yes
114		b/w Mono wWay/Restano Way & Church St	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	5,905	C	Yes
115	S Washington St	n/o SR 108	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	212	D	10,859	C	Yes
116		b/w Restano Way & Church St	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	212	D	18,595	E	No
117	Sanguinetti Rd	b/w Mono Way & S Greenley Rd (eb one-way)	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	213	D	4,299	B	Yes
118		b/w S Greenley Rd & Fir Dr	Urban	4-Lane Undivided Arterial (no left-turn lane)	209	D	8,500	A	Yes
119		b/w Fir Dr & Mono Way	Urban	2-Lane Principal/Minor Arterial (no left-turn lane)	213	D	3,182	B	Yes
120	Peaceful Oak Dr	n/o SR 108 Bypass	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	596	A	Yes
121		b/w SR 108 Ramps	Urban	2-Lane Principal/Minor Arterial (with left-turn lane)	212	D	2,663	A	Yes
122		b/w Mono Way and SR 108	Urban	4-Lane Divided Arterial (with left-turn lane)	208	D	5,316	A	Yes
123	Other Roads	Bell Mooney Rd, w/o Jacksonville Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	148	A	Yes
124		Big Hill Rd, b/w Sawmill Flat Rd & N Bald Mountain Rd	Mountainous	Major/Minor Collector (23 ft.- 32 ft.)	107	D	1,169	A	Yes
125		Black Oak Rd, n/o Tuolumne Rd	Rolling	Major/Minor Collector (18 ft.- 20 ft.)	9	D	1,586	A	Yes
126		Bonanza Rd, w/o Snell Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,330	A	Yes
127		Bonds Flat Rd, e/o La Grange Rd	Rolling	Major Collector (34 ft.- 36 ft.)	6	D	1,113	A	Yes
128		Campo Seco Rd, e/o Seco Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,454	A	Yes
129		Cherokee Rd, w/o Tuolumne Rd North	Rolling	Major/Minor Collector (20 ft.- 23 ft.)	8	D	1,656	A	Yes
130		Chicken Ranch Rd, w/o SR 108	Rolling	Local Road	11	C	1,406	A	Yes
131		Draper Mine Rd, e/o SR 108 & SR 49	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	942	A	Yes
132		East Ave, s/o Twain Harte Dr	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,392	A	Yes
133		Ferretti Road, s/o Pine Mt Dr	Rolling	Major/Minor Collector (23 ft.- 32 ft.)	7	D	2,870	A	Yes
134		Golf Links Rd, n/o SR 108	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,032	A	Yes
135		Hess Ave, b/w SR 108 & Mono Way	Urban	2-Lane Major/Minor Collector (with left-turn lane)	212	D	8,137	C	Yes
136		Jacksonville Rd, s/o Twist Ave	Rolling	Major Collector (34 ft.- 36 ft.)	6	D	1,301	A	Yes
137		Jacobe Rd, w/o Old Wards Ferry Rd	Rolling	Major/Minor Collector (20 ft.- 23 ft.)	8	D	596	A	Yes
138		Lime Kiln Rd, s/o Campo Seco Rd & SR 108	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	3,973	B	Yes
139		Lyons Bald Mt.Rd, e/o Greenley Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,709	A	Yes

Appendix Table 4 - Existing Roadway ADTs and LOS

#	Roadway Name	Roadway/Highway Segment	LOS Area Type	Roadway Type	LOS Type#	Minimum LOS Policy	Existing (2014) ADT	LOS*	Acceptable?
140	Other Roads (cont.)	Lyons St, w/o Greenley Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	5,501	B	Yes
141		Main St (Jamestown), n/o Donovan St	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,526	A	Yes
142		Merrell Rd, s/o SR 120	Rolling	Major/Minor Collector (18 ft.- 20 ft.)	9	D	480	A	Yes
143		Moringstar Dr, w/o Greenley Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,517	A	Yes
144		Old Priest Grade, 1/2 Mile e/o SR 120	Mountainous	Major/Minor Collector (18 ft.- 20 ft.)	109	D	2,172	B	Yes
145		Sawmill Flat Rd, e/o Parrots Ferry Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	2,300	A	Yes
146		Smith Station Rd, s/o SR 120	Rolling	Major Collector (34 ft. - 36 ft.)	6	D	537	A	Yes
147		Snell Rd-Racetrack Rd, n/o Bonanza Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	3,586	B	Yes
148		South Greenley Rd, b/v Mono Way & Sanguineti Rd	Urban	4-Lane Divided Arterial (with left-turn lane)	208	D	8,815	A	Yes
149		Springfield Rd, n/o Horseshoe Bend Rd	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,892	A	Yes
150		Woodhams Carne Rd, s/o Tuolumne Rd	Rolling	Major/Minor Collector (18 ft.- 20 ft.)	9	D	1,473	A	Yes
151		Yankee Hill Rd, e/o Bigler St	Urban	2-Lane Major/Minor Collector (no left-turn lane)	213	D	1,149	A	Yes
152		Willow Springs Dr, e/o Bonnie St	Rolling	Local Road	11	C	2,707	B	Yes

Number of roadway segments operating below minimum acceptable LOS: 7

Note: FC # = Functional Classification Number, ADT = Average Daily Traffic, n/o = north of. s/o = south of, w/o = west of, e/o = east of, LOS = Level of Service, Rolling or Mountainous = rural roadways.

*Minimum Acceptable Roadway LOS for All Roadways = LOS "D"

Appendix Table 5 - Summary of Future Year (2030) Planned Improvements

ID	Improvement Project	Type	Description
1	Signalization of Fifth Avenue at State Route 108 & Geometric Improvements	Tier 1a – Short Range CIP	Construct a new signal at Fifth Avenue and Highway 108 in Jamestown. Construct additional right turn lanes on 5th Avenue in the northbound and southbound directions. Widen SR 108/49 for a right lane turn pocket, construct a cul-de-sac at the south end of Jamestown Road, and creating a "right in only" access from westbound SR 108/49 to Jamestown Road.
2	Parrots Ferry Rd and SR 49 Intersection Improvements	Tier 1a – Short Range CIP	Construct geometric improvements at the intersection of SR 49 and Parrots Ferry Road. Construct wider shoulders from SR 49 to Union Hill Rd.
3	Tuolumne Road Improvements between Lambert Lake Rd & Terrance Dr.	Tier 1a – Short Range CIP	Widen and realign Tuolumne Road from Lambert Lake Rd & Terrance Dr.
4	Phoenix Lake Rd from Ridgewood to Paseo de Los Portales Rd	Tier 1a – Short Range CIP	Widen and realign Phoenix Lake Road from Ridgewood Rd to Paseo de Los Portales Rd.
5	Signalization of Tuolumne Rd and Standard Rd & adding Geometric Improvements	Tier 1a – Short Range CIP	Construct a new signal at Tuolumne Rd and Standard Rd. Constructing a new left and right turn lane on Standard Rd and construct a new left and right turn lane for Tuolumne Rd.
6	New Rawhide Bridge and Rawhide Rd Realignment	Tier 1a – Short Range CIP	Construct a new concrete bridge with two through lanes and a left turn lane east of the existing single lane bridge. The new bridge will realign with Main Street and SR 108/49 in Jamestown.
7	Mono Way Operational Safety Project	Tier 1a – Short Range CIP	A segment of SR 108 from Peaceful Oak Rd to Via Este will be relinquished to the County and become a County maintained road. Improve the current roadway geometry to accommodate pedestrian traffic, improve drainage, realign skewed intersection and install left turn pockets.
8	Peaceful Oak Road/SR 108 Off Ramps Project	Tier 1a – Short Range CIP	Construct two off ramps at the Peaceful Oak Rd/State Route 108 interchange that were eliminated from the original scope of the East Sonora Bypass Stage II project.
9	Old Wards Ferry Road - Crossing Curtis Creek Bridge	Tier 1a – Short Range CIP	Replace the existing one lane concrete slab bridge.
10	Hardin Flat Road - Crossing South Fork Tuolumne River Bridge	Tier 1a – Short Range CIP	Replace the wood post and beam bridge with reinforced concrete slab bridge. The abutment and stringers of the existing bridge suffered burn damage during the RIM Fire in 2013.
11	Lime Kiln Road Crossing Curtis Creek Bridge Replacement	Tier 1a – Short Range CIP	Replace the existing one lane bridge with a two lane concrete bridge and realign Lime Kiln Road.
12	Lime Kiln Road Crossing Sullivan Bridge Replacement	Tier 1a – Short Range CIP	Replace the existing bridge and realign Lime Kiln Road to eliminate the tight "U" curve in the road alignment.
13	Jacksonville Road - Crossing Tuolumne River Bridge	Tier 1a – Short Range CIP	Rehabilitate or replace the existing concrete slab bridge.
14	Simms Road Bridge- Crossing Six Bit Creek Ford	Tier 1a – Short Range CIP	Replace the existing one lane concrete ford with a two lane bridge.
15	Algerine Road - Crossing Algerine Creek Bridge Replacement	Tier 1a – Short Range CIP	Rehabilitate the existing bridge by widening the bridge and constructing new railing that meets current standards.
16	Algerine Road - Crossing Blanket Creek Bridge Replacement	Tier 1a – Short Range CIP	Replace the existing bridge with a one span reinforced concrete slab.
17	Crystal Falls Drive - Crossing Sullivan Creek Bridge Replacement Project	Tier 1a – Short Range CIP	Rehabilitate or replace the existing concrete slab bridge.
18	Buchanan Road Reconstruction and Right of Way Acquisitions	Tier 1a – Short Range CIP	The County is the project sponsor for the right of way phase of the project.
19	Bridge Preventive Maintenance Program - 10 Bridges	Tier 1a – Short Range CIP	Bridge preventive maintenance for various bridges in Tuolumne County. The program concentrates on preservation of bridges before rehabilitation or replacement are necessary.
20	Big Creek Shaft Road - Crossing Big Creek Bridge Replacement	Tier 1a – Short Range CIP	Replace the existing bridge and realign the roadway to eliminate the 90 degree turns on both sides of the bridge.
21	Italian Bar Road - Crossing Rose Creek Bridge Replacement	Tier 1a – Short Range CIP	Replace the existing concrete two span bridge with a concrete single span bridge.
22	Draper Mine Road - Crossing Curtis Creek Bridge Replacement	Tier 1a – Short Range CIP	Removal of the existing bridge and construction of a new bridge. Draper Mine Road will be realigned so the "S" curve in the existing road will be eliminated.
23	North-South Connector - Greenley Rd Extension to SR 49	Mid Range CIP	Construct a new major collector road from the intersection of Greenley Rd/Lyons Bald Mountain Rd/Lyons St to SR 49 in between Jack Page Rd/Old Sonora Columbia Rd & Pesce Way. Construct a new signal at the intersection of Greenley Rd & Lyons/Bald Mt Rd. Construct a new signal at the intersection of SR 49 & Greenley Rd.
24	SR-108/49 Widen to five lanes b/w SR 49 (Stockton Rd) to Fifth Ave	Mid Range CIP	Widen SR-49/SR-108 to 5-lanes junction south of Sonora (Stockton Rd) to Fifth Ave. Construct a portion of the Sonora to Jamestown Trail.
25	SR-108/49 Widen to five lanes b/w Fifth Ave to South Main St	Mid Range CIP	Widen SR-49/SR-108 to 5-lanes from Fifth Ave to SR-49 junction south Main St.
26	SR-108/49 Widen to five lanes b/w South Main St to Chicken Ranch Rd	Mid Range CIP	Widen SR-49/SR-108 to 5-lanes from South Main St to Chicken Ranch Rd.
27	SR-108/120/49 Construct a 4 lane Expressway b/w Chicken Ranch Rd to Green Springs Rd/La Grange Rd	Mid Range CIP	Construct a 4 lane expressway from Chicken Ranch Rd to Green Springs Rd/La Grange Rd.
28	SR-49 Widen to five lanes from Parrots Ferry Rd to the new Greenley Rd intersection	Mid Range CIP	Widen SR-49 to 5-lanes from Parrots Ferry Rd to the new Greenley Intersection. This new intersection would be between Jack Hage Rd/Old Sonora Columbia Rd & Pesce Way.
29	Greenley Rd & Mono Way Intersection - Capacity Improvements	Mid Range CIP	Construct capacity improvements at the intersection of Greenley Rd & Mono Way.
30	South Washington Rd/SR 108/Lime Kiln Intersection - Capacity Improvements	Mid Range CIP	Add capacity improvements to the intersection of South Washington/SR 108/Lime Kiln Road
31	High T-Intersection - Yosemite Junction -SR 108 & SR 120	Mid Range CIP	Construct a new high T intersection at Yosemite Junction.

Source: Tuolumne County Transportation Council

Appendix Table 6 - Summary of Future Year (2040) Planned Improvements

ID	Improvement Project	Type	Description
1	East Sonora Bypass Stage III Alternative - Widen SR 108 to five lanes	Long Range CIP	Widen SR 108 to five lanes from Mono Way/Via Este to N. Sunshine Rd/Mono Vista Rd.
2	Tuolumne Road Widen to Five Lanes from Mono Way to Hess Ave	Long Range CIP	Widen Tuolumne Rd to five lanes from Mono Way to Hess Ave.
3	Mono Way Widening to Five Lanes from Hess Ave to Standard Rd/Peaceful Oak Dr	Long Range CIP	Widen Mono Way to five lanes from Hess Ave to Standard/Peaceful Oak Road.
4	Signalization @ Parrotts Ferry Rd & Sawmill Flat Road	Long Range CIP	Construct a new signal at Parrots Ferry Rd & Sawmill Flat Rd.
5	Signalization @ Tuolumne Rd & Woodham Carne/Black Oak Rd including Realignment	Long Range CIP	Construct a new signal at Tuolumne Rd & Woodham Carne/Black Oak Rd. Include a realignment of Woodham Carne Rd.

Source: Tuolumne County Transportation Council

Appendix Table 7 - Future Year Intersection LOS Comparison - AM Peak Hour

No.	Intersection Name	Urban / Rural	Min. LOS	2015 Control	Year 2015 Existing		2030 Control	Year 2030 DCP		Year 2030 PSP		Year 2030 RTE		Year 2030 RTP		2040 Control	Year 2040 DCP		Year 2040 PSP		Year 2040 RTE		Year 2040 RTP			
					AM Peak Hour			AM Peak Hour		AM Peak Hour		AM Peak Hour		AM Peak Hour			AM Peak Hour		AM Peak Hour		AM Peak Hour		AM Peak Hour			
					Delay (s)	LOS		Delay (s)	LOS		Delay (s)	LOS														
1	SR 108-SR 120 & O'Byrnes Ferry Rd	Rural	D	Signal	8.0	A	Signal	9.0	A	9.0	A	9.0	A	9.0	A	Signal	9.2	A	9.2	A	9.2	A	9.2	A		
2	SR 120 & SR 108-SR 120/SR 108	Rural	D	TWSC	13.4	B	TWSC	14.0	B	14.0	B	14.0	B	14.1	B	TWSC	14.6	B	14.7	B	14.6	B	14.7	B		
3	SR 49-SR 120/SR 120 & SR 49	Rural	D	TWSC	9.3	A	TWSC	9.8	A	9.8	A	9.8	A	9.8	A	TWSC	9.9	A	9.9	A	9.9	A	9.8	A		
4	SR 49 (Montezuma Rd) & SR 120/SR 49-SR 120	Rural	D	TWSC	20.3	C	TWSC	20.9	C	21.1	C	21.3	C	21.3	C	TWSC	22.4	C	22.8	C	23.0	C	23.0	C		
5	SR 49-SR 108 & Chicken Ranch Rd	Urban	D	TWSC	24.5	C	TWSC	14.1	B	14.1	B	14.3	B	14.2	B	TWSC	14.5	B	14.7	B	14.8	B	14.8	B		
6	SR 49-SR 108 & South Main St	Urban	D	TWSC	14.2	B	TWSC	16.2	C	16.2	C	16.3	C	16.3	C	TWSC	16.8	C	17.1	C	17.4	C	17.1	C		
7a	Humbug St/Rawhide Rd & SR 49-SR 108	Urban	D	Signal	25.5	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7b	North Main St/Rawhide Rd & SR 49-SR 108	Urban	D	-	-	-	Signal	18.6	B	18.7	B	18.7	B	19.7	B	Signal	20.0	C	21.1	C	20.0	B	21.2	C		
8	North Main St/Jamestown Rd & SR 49-SR 108	Urban	D	TWSC	93.5	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
9	5th Ave & SR 49-SR 108	Urban	D	TWSC	232.2	F	Signal	14.4*	B	14.2*	B	15.3*	B	14.4*	B	Signal	17.2*	B	17.1*	B	15.6*	B	16.6*	B		
10	5th Ave & Jamestown Rd	Urban	D	TWSC	9.5	A	TWSC	10.2	B	10.2	B	10.2	B	10.2	B	TWSC	10.4	B	10.4	B	10.4	B	10.4	B		
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	Urban	D	TWSC	36.9	E	TWSC	15.8	C	15.9	C	16.0	C	15.9	C	TWSC	16.2	C	16.4	C	16.4	C	16.3	C		
12	Shaws Flat Rd & SR 49	Urban	D	TWSC	14.9	B	TWSC	18.1	C	18.3	C	18.1	C	17.7	C	TWSC	19.8	C	21.1	C	21.1	C	20.5	C		
13	Parrotts Ferry Rd & Sawmill Flat Rd	Urban	D	TWSC	41.0	E	TWSC	76.9	F	81.4	F	86.5	F	86.5	F	Signal	8.7	A	8.8	A	9.1	A	9.1	A		
14	SR 49 & Parrotts Ferry Rd (Columbia Jctn)	Urban	D	Signal	17.4	B	Signal	21.7	C	21.7	C	22.0	C	22.7	C	Signal	21.5	C	21.4	C	20.9	C	21.3	C		
15	SR 49 (Stockton Rd) & S Forest Rd	Urban	D	TWSC	12.1	B	TWSC	13.0	B	13.0	B	13.0	B	13.0	B	TWSC	13.1	B	13.1	B	13.2	B	13.1	B		
16	Southgate Dr/Woods Creek Dr & SR 49 (Stockton Rd)	Urban	D	TWSC	12.4	B	TWSC	14.1	B	14.1	B	14.1	B	14.4	B	TWSC	14.7	B	14.8	B	14.7	B	14.5	B		
17	SR 49 (Stockton Rd) & W. Savemart Drwy	Urban	D	TWSC	9.6	A	TWSC	10.0	B	10.0	B	10.0	B	10.0	B	TWSC	10.1	B	10.1	B	10.1	B	10.1	B		
18	SR 49 (Stockton Rd) & E. Savemart Drwy	Urban	D	TWSC	11.0	B	TWSC	12.0	B	12.0	B	11.9	B	12.0	B	TWSC	12.1	B	12.1	B	12.1	B	12.1	B		
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	Urban	D	TWSC	134.4	F	TWSC	56.0	F	58.2	F	59.0	F	47.1	E	TWSC	59.9	F	64.3	F	68.4	F	56.8	F		
20	SR 49 (N Washington St) & School St	Urban	D	TWSC	43.5	E	TWSC	22.1	C	22.4	C	22.5	C	20.0	C	TWSC	22.8	C	23.4	C	24.5	C	21.8	C		
21	SR 49 (N Washington St) & W Snell St/Elkin St	Urban	D	TWSC	20.9	C	TWSC	17.2	C	17.2	C	17.0	C	16.7	C	TWSC	17.7	C	18.3	C	18.4	C	18.2	C		
22	SR 49 (N Washington St) & Bradford St	Urban	D	TWSC	28.6	D	TWSC	25.8	D	25.9	D	26.3	D	24.1	C	TWSC	29.3	D	29.3	D	29.8	D	28.6	D		
23	S Washington St/SR 49 (S Washington St) & SR 49 (Stockton Rd)	Urban	D	Signal	63.1	E	Signal	46.7*	D	45.9*	D	47.2*	D	44.6*	D	Signal	56.1	E	55.1	E	59.6	E	52.6*	D		
24	S Washington St & Church St	Urban	D	TWSC	64.1	F	TWSC	49.0	E	48.5	E	49.0	E	47.5	E	TWSC	57.3	F	57.3	F	57.3	F	56.6	F		
25	Bulwer St/Restano Way	Urban	D	Signal	10.8	B	Signal	8.6	A	8.1	A	8.4	A	7.3	A	Signal	7.9	A	10.9	B	8.6	A	9.3	A		
26	Mono Way/S Stewart St & Restano Way	Urban	D	Signal	15.4	B	Signal	12.4	B	12.4	B	12.3	B	12.3	B	Signal	12.5	B	13.2	B	12.8	B	13.1	B		
27	Lime Kiln Rd/S Washington St & SR 108	Urban	D	Signal	42.9*	D	Signal	29.8	C	30.1	C	30.5	C	30.5	C	Signal	31.2	C	32.7	C	32.5	C	31.9	C		
28	Greenly Rd & Lyons Bald Mountain Rd	Urban	D	AWSC	10.7	B	Signal	22.9	C	23.2	C	23.1	C	23.5	C	Signal	23.2	C	24.9	C	24.4	C	24.3	C		
29	Greenly Rd & Morning Star Dr/Cabezut Rd	Urban	D	Signal	23.0	C	Signal	31.7*	C	33.5*	C	32.1*	C	35.3*	D	Signal	40.5*	D	35.7*	D	35.7*	D	39.4*	D		
30	Greenly Rd & Mono Way	Urban	D	Signal	27.2	C	Signal	25.8	C	25.5	C	25.7	C	27.7	C	Signal	31.4	C	28.2	C	35.3	D	39.5*	D		
31	Old Wards Ferry Rd/Greenly Rd & Sanguinetti Rd	Urban	D	Signal	19.1	B	Signal	19.9	B	19.6	B	19.5	B	19.5	B	Signal	20.1	C	20.4	C	20.2	C	20.2	C		
32	Tuolumne Rd & Mono Way	Urban	D	Signal	12.7	B	Signal	12.5	B	11.9	B	11.8	B	12.1	B	Signal	12.9	B	14.6	B	13.4	B	13.5	B		
33	Jctn Shopping Cntr Dr & Mono Way	Urban	D	Signal	12																					

Appendix Table 8 - Future Year Intersection LOS Comparison - PM Peak Hour

No.	Intersection Name	Urban / Rural	Min. LOS	2015 Control	Year 2015 Existing		2030 Control	Year 2030 DCP		Year 2030 PSP		Year 2030 RTE		Year 2030 RTP		2040 Control	Year 2040 DCP		Year 2040 PSP		Year 2040 RTE		Year 2040 RTP			
					PM Peak Hour			PM Peak Hour		PM Peak Hour		PM Peak Hour		PM Peak Hour			PM Peak Hour		PM Peak Hour		PM Peak Hour		PM Peak Hour			
					Delay (s)	LOS		Delay (s)	LOS		Delay (s)	LOS														
1	SR 108-SR 120 & O'Byrnes Ferry Rd	Rural	D	Signal	8.7	A	Signal	7.3	A	7.3	A	7.3	A	7.2	A	Signal	7.4	A	7.5	A	7.5	A	7.4	A		
2	SR 120 & SR 108-SR 120/SR 108	Rural	D	TWSC	17.0	C	TWSC	18.1	C	18.1	C	18.2	C	18.4	C	TWSC	20.0	C	20.3	C	20.2	C	20.4	C		
3	SR 49-SR 120/SR 120 & SR 49	Rural	D	TWSC	9.8	A	TWSC	10.5	B	10.5	B	10.5	B	10.5	B	TWSC	10.7	B	10.7	B	10.7	B	10.7	B		
4	SR 49 (Montezuma Rd) & SR 120/SR 49-SR 120	Rural	D	TWSC	24.7	C	TWSC	24.8	C	25.1	D	25.6	D	25.3	D	TWSC	26.8	D	27.5	D	27.8	D	27.8	D		
5	SR 49-SR 108 & Chicken Ranch Rd	Urban	D	TWSC	47.2	E	TWSC	18.8	C	19.0	C	19.3	C	19.2	C	TWSC	20.0	C	20.4	C	20.9	C	21.0	C		
6	SR 49-SR 108 & Main St	Urban	D	TWSC	17.4	C	TWSC	19.6	C	19.6	C	19.8	C	19.8	C	TWSC	20.7	C	21.0	C	21.5	C	21.1	C		
7a	Humbug St/Rawhide Rd & SR 49-SR 108	Urban	D	Signal	38.1	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7b	North Main St/Rawhide Rd & SR 49-SR 108	Urban	D	-	-	-	Signal	21.2	C	21.1	C	26.3	C	22.5	C	Signal	24.1	C	25.5	C	24.0	C	30.0	C		
8	North Main St/Jamestown Rd & SR 49-SR 108	Urban	D	TWSC	125.1	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
9	5th Ave & SR 49-SR 108	Urban	D	TWSC	429.6	F	Signal	13.5*	B	13.2*	B	12.9*	B	12.8*	B	Signal	14.7*	B	15.4*	B	14.2*	B	13.9*	B		
10	5th Ave & Jamestown Rd	Urban	D	TWSC	9.7	A	TWSC	10.5	B	10.5	B	10.5	B	10.5	B	TWSC	10.7	B	10.7	B	10.7	B	10.7	B		
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	Urban	D	TWSC	69.6	F	TWSC	20.8	C	21.2	C	21.4	C	21.1	C	TWSC	21.7	C	22.0	C	22.2	C	21.8	C		
12	Shaws Flat Rd & SR 49	Urban	D	TWSC	17.7	C	TWSC	25.7	D	26.4	D	25.6	D	25.2	D	TWSC	30.6	D	34.6	D	35.6	E	34.4	D		
13	Parrotts Ferry Rd & Sawmill Flat Rd	Urban	D	TWSC	54.3	F	TWSC	113.8	F	118.8	F	128.9	F	130.3	F	Signal	17.2	B	17.6	B	17.8	B	17.8	B		
14	SR 49 & Parrotts Ferry Rd (Columbia Jctn)	Urban	D	Signal	19.2	B	Signal	19.3	B	19.3	B	19.5	B	19.4	B	Signal	16.2	B	16.0	B	16.6	B	16.7	B		
15	SR 49 (Stockton Rd) & S Forest Rd	Urban	D	TWSC	12.3	B	TWSC	13.2	B	13.3	B	13.3	B	13.3	B	TWSC	13.4	B	13.5	B	13.5	B	13.4	B		
16	Southgate Dr/Woods Creek Dr & SR 49 (Stockton Rd)	Urban	D	TWSC	12.2	B	TWSC	13.8	B	13.8	B	13.6	B	14.0	B	TWSC	15.8	C	15.7	C	15.7	C	14.1	B		
17	SR 49 (Stockton Rd) & W. Savemart Drwy	Urban	D	TWSC	10.3	B	TWSC	10.9	B	10.9	B	10.9	B	10.9	B	TWSC	11.0	B	11.1	B	11.0	B	11.0	B		
18	SR 49 (Stockton Rd) & E. Savemart Drwy	Urban	D	TWSC	14.0	B	TWSC	16.8	C	16.8	C	16.7	C	17.1	C	TWSC	17.3	C	17.5	C	17.4	C	17.5	C		
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	Urban	D	TWSC	160.5	F	TWSC	61.9	F	63.7	F	64.7	F	51.6	F	TWSC	67.9	F	73.8	F	79.4	F	65.7	F		
20	SR 49 (N Washington St) & School St	Urban	D	TWSC	44.1	E	TWSC	23.1	C	23.3	C	23.2	C	20.8	C	TWSC	23.9	C	24.7	C	25.8	D	23.2	C		
21	SR 49 (N Washington St) & W Snell St/Elkin St	Urban	D	TWSC	22.6	C	TWSC	17.8	C	18.0	C	17.6	C	17.4	C	TWSC	18.4	C	19.1	C	19.4	C	19.2	C		
22	SR 49 (N Washington St) & Bradford St	Urban	D	TWSC	30.0	D	TWSC	24.3	C	24.4	C	24.7	C	23.5	C	TWSC	27.4	D	27.7	D	27.4	D	26.7	D		
23	S Washington St/SR 49 (S Washington St) & SR 49 (Stockton Rd)	Urban	D	Signal	58.1	E	Signal	40.7*	D	40.2*	D	42.7*	D	40.7*	D	Signal	48.5	D	48.2	D	52.1	D	48.2*	D		
24	S Washington St & Church St	Urban	D	TWSC	101.4	F	TWSC	71.1	F	72.3	F	72.3	F	69.9	F	TWSC	91.2	F	89.2	F	91.2	F	73.5	F		
25	Bulwer St/Restano Way	Urban	D	Signal	10.7	B	Signal	11.6	B	12.1	B	11.3	B	10.3	B	Signal	11.8	B	12.7	B	13.9	B	10.9	B		
26	Mono Way/S Stewart St & Restano Way	Urban	D	Signal	11.2	B	Signal	13.3	B	13.3	B	13.3	B	12.8	B	Signal	13.2	B	13.4	B	13.0	B	12.9	B		
27	Lime Kiln Rd/S Washington St & SR 108	Urban	D	Signal	33.5*	C	Signal	25.8	C	26.1	C	24.5	C	26.1	C	Signal	25.8	C	27.7	C	28.8	C	24.8	C		
28	Greenly Rd & Lyons Bald Mountain Rd	Urban	D	AWSC	28.5	D	Signal	23.7	C	24.2	C	23.8	C	23.8*	C	Signal	24.2*	C	24.8*	C	25.0*	C	25.6*	C		
29	Greenly Rd & Morning Star Dr/Cabezut Rd	Urban	D	Signal	24.0	C	Signal	32.3*	C	32.0*	C	33.3*	C	37.7*	D	Signal	51.3*	D	47.0*	D	42.5*	D	54.6*	D		
30	Greenly Rd & Mono Way	Urban	D	Signal	35.5	D	Signal	27.2	C	27.6	C	27.5	C	27.9	C	Signal	29.6	C	29.8	C	29.9	C	29.9	C		
31	Old Wards Ferry Rd/Greenly Rd & Sanguinetti Rd	Urban	D	Signal	23.5	C	Signal	23.9	C	24.0	C	23.6	C	23.7	C	Signal	25.1	C	25.4	C	25.2	C	25.4	C		
32	Tuolumne Rd & Mono Way	Urban	D	Signal	10.6	B	Signal	10.6	B	10.4	B	10.5	B	10.5	B	Signal	12.6	B	12.1	B	11.9	B	12.3	B		
33	Jctn Shopping Cntr Dr & Mono Way																									

Appendix Table 9 - Intersections Operating at LOS D or better, but Movement(s) Operating Below LOS D

No.	Intersection Name	Urban / Rural	Min. LOS	2015 Control	Year 2015 Existing		Improvements	
					AM Pk Hr	PM Pk Hr		
27	Lime Kiln Rd/S Washington St & SR 108	Urban	D	Signal	SBT,	SBT,	Add SBL and SBR	
	Number of intersections with movements operating below LOS D:		1		1			

Notes: Although the intersection is operating at an "Average" LOS D or better, the above movements of the intersection are operating/projected-to-operate below LOS D threshold.

No.	Intersection Name	Urban / Rural	Min. LOS	2030 Control	Year 2030 DCP		Year 2030 PSP		Year 2030 RTE		Year 2030 RTP		Improvements	
					AM Pk Hr	PM Pk Hr								
9	5th Ave & SR 49-SR 108	Urban	D	Signal	WBL,	WBL,	WBL,	WBL,	WBL,	WBL,	WBL,	WBL,	Protected EB and WB Left-Turn	
23	S Washington St/SR 49 (S Washington St) & SR 49 (Stockton Rd)	Urban	D	Signal	NBL, SBT,	NBL, SBT,	Add NBL, SBR, Overlap EBR							
28	Greenly Rd & Lyons Bald Mountain Rd	Urban	D	Signal								WBL,	Signal Timing	
29	Greenly Rd & Morning Star Dr/Cabezut Rd	Urban	D	Signal	NBL,	SBL,	NBL, SBL,	SBL,	NBL, SBL,	SBL,	NBL, SBL,	NBL, SBL,	Add NBR, Overlap NBR and SBR	
	Number of intersections with movements operating below LOS D:		3		3		3	3	3	3	3	3	4	

Notes: Although the intersection is operating at an "Average" LOS D or better, the above movements of the intersection are operating/projected-to-operate below LOS D threshold.

No.	Intersection Name	Urban / Rural	Min. LOS	2040 Control	Year 2040 DCP		Year 2040 PSP		Year 2040 RTE		Year 2040 RTP		Improvements
					AM Pk Hr	PM Pk Hr							
9	5th Ave & SR 49-SR 108	Urban	D	Signal	WBL,	WBL,	WBL,	WBL,	WBL,	WBL,	WBL,	WBL,	Protected EB and WB Left-Turn
23	S Washington St/SR 49 (S Washington St) & SR 49 (Stockton Rd)	Urban	D	Signal							NBL, SBT,	NBL, SBT,	Add NBL, SBR, Overlap EBR
28	Greenly Rd & Lyons Bald Mountain Rd	Urban	D	Signal		WBL,		WBL,		WBL,		WBL,	Signal Timing
29	Greenly Rd & Morning Star Dr/Cabezut Rd	Urban	D	Signal	NBL, SBL,	NBL, NBT, SBL,	Add NBR, Overlap NBR and SBR						
30	Greenly Rd & Mono Way	Urban	D	Signal							SBL, SBT,		Add WBR
	Number of intersections with movements operating below LOS D:		2		3		2	3	2	3	4	4	

Notes: Although the intersection is operating at an "Average" LOS D or better, the above movements of the intersection are operating/projected-to-operate below LOS D threshold.

Appendix Table 10 - Future Year Average Daily Traffic (ADT) Volume Forecasts

#	Roadway/Highway Segment	2015 Type #	2030 Type #	2040 Type #	Existing (2015) ADT	Year 2030 - Distinctive Communities Proposed	Year 2030 - Public Services Proposed	Year 2030 - Recent Trends Existing	Year 2030 - Recent Trends Proposed	Year 2040 - Distinctive Communities Proposed	Year 2040 - Public Services Proposed	Year 2040 - Recent Trends Existing	Year 2040 - Recent Trends Proposed
1	w/o Tulloch rd	1	1	1	11,200	12,926	12,902	12,910	12,882	13,904	13,984	13,877	13,847
2	b/w O'Byrnes Ferry Rd & La Grange Rd	4	1	1	15,300	17,837	17,983	18,322	18,385	19,258	19,743	19,825	19,959
3	b/w O'Byrnes Ferry Rd & SR 120	4	1	1	18,000	20,828	20,958	21,293	21,336	22,394	22,893	22,947	23,058
4	b/w East Jct SR 120 and West Jct SR 49	4	1	1	17,600	20,017	20,175	20,490	20,478	21,344	21,810	21,887	21,957
5	b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	210	210	210	19,900	22,067	22,071	22,294	22,186	22,966	22,970	23,202	23,090
6	w/o Mono Way	204	204	204	20,500	22,273	22,360	23,057	23,139	23,180	23,271	23,996	24,081
7	b/w Mono Way and Hess Ave	204	204	204	20,800	22,084	22,100	22,084	22,084	22,983	23,000	22,983	22,983
8	b/w Hess Ave and Peaceful Oak Rd	204	204	204	15,700	16,669	16,669	16,669	16,669	17,348	17,348	17,348	17,348
9	b/w Peaceful Oak Rd and Mono Way	204	204	204	14,200	15,076	15,076	15,076	15,076	15,690	15,690	15,690	15,690
11	b/w Mono Way and Soulsbyville Rd	210	210	208	14,600	16,107	15,875	15,661	15,718	17,392	18,643	18,020	17,303
12	b/w Soulsbyville Rd and W Conn. Twain Harte Dr	208	208	208	8,100	8,635	8,518	8,519	8,558	9,206	9,233	9,084	9,139
13	b/w W & E Conn Twain Harte Dr	203	203	203	8,000	8,347	8,261	8,271	8,281	8,849	8,628	8,971	8,789
14	e/o East Conn. Twain Hart Rd	211	211	211	8,100	8,346	8,346	8,346	8,346	8,515	8,515	8,515	8,515
15	w/o Chief Fuller Rd	211	211	211	6,900	7,110	7,110	7,110	7,110	7,253	7,253	7,253	7,253
16	e/o Chief Fuller Rd	211	211	211	4,450	4,617	4,618	4,623	4,619	4,726	4,746	4,750	4,744
17	w/o West Long Barn Conn.	5	5	5	4,200	4,364	4,365	4,363	4,360	4,463	4,481	4,467	4,467
18	b/w West Long Barn Conn. and East Long Barn Conn.	5	5	5	5,100	5,261	5,262	5,261	5,258	5,367	5,368	5,367	5,364
19	b/w Kennedy Meadows Rd and Tuolumne/ Mono Countyline	5	5	5	790	928	928	928	928	1,007	1,008	1,006	1,006
20	n/o Tuolumne/Mariposa County Line	5	5	5	630	772	770	771	769	848	853	846	844
21	s/o South Jct SR 120	5	5	5	820	979	976	979	982	1,067	1,075	1,074	1,066
22	n/o North SR 120 Jct	5	5	5	1,550	3,348	3,383	3,261	3,261	3,416	3,451	3,327	3,327
23	b/w SR 49 (Montezuma Jct) & Bell Mooney Rd	4	1	1	18,600	22,815	23,008	23,201	23,190	23,873	24,288	24,472	24,494
24	b/w Bell Mooney Rd and South Jct Main St	211	208	208	19,300	23,610	23,794	23,997	23,978	24,673	25,083	25,267	25,282
25	b/w South Jct Main St and Rawhide Rd	210	208	208	19,300	24,988	25,241	25,249	25,309	26,011	26,419	26,596	26,536
26	b/w Rawhide Rd and Fifth Ave	210	208	208	19,700	28,325	28,298	28,655	28,606	29,756	29,905	30,022	30,078
27	b/w Fifth Ave and East Jct SR 108	210	208	208	23,500	29,288	29,313	29,447	29,478	30,157	30,166	30,148	30,167
28	btn SR 108 and Fairview Lane (Ponderosa)	210	210	210	11,900	13,245	13,346	13,251	13,017	14,062	14,169	14,068	13,820
29	b/w Fairview Lane and Southgate Dr	210	210	210	10,700	11,871	12,043	11,850	11,705	12,603	12,785	12,581	12,426
30	b/w Southgate Dr and Washington St	210	210	210	10,900	13,912	13,812	13,734	13,985	14,770	14,663	14,581	14,847
31	b/w Stockton Rd and Dodge St	211	211	211	18,500	16,883	16,923	17,015	16,749	17,924	17,966	18,064	17,782
32	n/o Dodge St	211	211	211	19,400	15,004	15,040	15,191	15,020	15,929	15,967	16,127	15,946
33	s/o N Washington St / Columbia Way	211	211	211	16,100	11,879	11,917	12,086	11,741	12,611	12,652	12,831	12,465
34	n/o N Washington St / Columbia Way	210	208	208	15,400	11,822	11,912	12,118	11,742	12,551	12,646	12,865	12,466
35	e/o Parrotts Ferry Rd (Columbia WYE)	211	208	208	13,300	16,684	16,720	16,913	16,612	17,021	17,110	17,525	17,190
36	w/o Parrotts Ferry Rd (Columbia WYE)	211	211	211	5,050	6,312	6,348	6,469	6,234	6,439	6,704	6,891	6,761
37	e/o Rawhide Rd	5	5	5	5,500	6,221	6,234	6,273	6,251	6,635	6,698	6,716	6,687
38	b/w Rawhide Rd and Turtletown	5	5	5	4,550	5,246	5,233	5,237	5,222	5,636	5,678	5,622	5,606
39	b/w Turtletown and Tuolumne / Calveras County Line	5	5	5	5,600	6,295	6,282	6,286	6,271	6,685	6,728	6,671	6,655
40	b/w Tulloch Rd and La Grange Rd	1	1	1	11,600	13,326	13,302	13,310	13,282	14,304	14,384	14,277	14,247
42	b/w East Jct 108 and North Jct SR 49	5	5	5	2,700	3,135	3,102	3,115	3,163	3,370	3,394	3,373	3,407
43	b/w North Jct SR 49 and Jacksonville Rd	5	5	5	3,750	5,935	5,944	5,819	5,879	6,055	6,064	5,936	5,998
44	b/w Jacksonville Rd and South Jct SR 49	5	5	5	5,000	5,957	6,006	5,967	5,983	6,497	6,593	6,525	6,546
45	b/w South Jct SR 49 and Priest-Coulterville Rd	5	5	5	3,900	5,427	5,481	5,529	5,532	5,537	6,847	5,641	5,644
46	w/o Ferretti Rd (Groveland Townsite)	5	5	5	4,800	5,627	5,634	5,604	5,630	6,115	6,188	6,100	6,136
47	e/o Ferretti Rd (Groveland Townsite)	5	5	5	5,800	6,374	6,370	6,371	6,364	6,707	6,728	6,703	6,695
48	w/o Hells Hollow Rd	5	5	5	4,850	5,487	5,484	5,501	5,489	5,851	5,884	5,873	5,864
49	e/o Smiths Station Rd	5	5	5	3,800	4,372	4,370	4,378	4,369	4,703	4,726	4,710	4,702
50	w/o Cherry Valley/Lake Rd	5	5	5	3,600	4,174	4,170	4,171	4,164	4,507	4,528	4,503	4,495
51	w/o Yosemite Park West Boundary	5	5	5	3,500	4,070	4,064	4,066	4,059	4,401	4,421	4,395	4,387
52	w/o Sanguinetti Rd	210	210	210	22,205	20,777	20,611	20,019	19,628	22,416	22,258	21,708	22,211
53	b/W Sanguinetti Rd & Greenley Rd	208	208	208	16,986	16,579	16						

Appendix Table 10 - Future Year Average Daily Traffic (ADT) Volume Forecasts

#	Roadway/Highway Segment	2015 Type #	2030 Type #	2040 Type #	Existing (2015) ADT	Year 2030 - Distinctive Communities Proposed	Year 2030 - Public Services Proposed	Year 2030 - Recent Trends Existing	Year 2030 - Recent Trends Proposed	Year 2040 - Distinctive Communities Proposed	Year 2040 - Public Services Proposed	Year 2040 - Recent Trends Existing	Year 2040 - Recent Trends Proposed	
59	Standard Road	b/w Tuolumne Rd & Mono Way	213	213	213	3,391	4,805	4,279	4,853	4,202	6,176	5,828	5,828	5,721
60	Cabezut Road	b/w Greenly Rd and Shannon Dr	212	212	212	5,775	6,680	6,598	6,845	6,773	7,362	7,407	6,983	7,391
61		e/o Shannon Dr	213	213	213	260	432	438	497	444	599	645	562	646
62	Parrotts Ferry Road	b/w SR 49 & Sawmill Flat Rd	213	213	213	11,100	12,511	12,546	12,728	12,659	12,763	12,799	12,985	12,914
63		b/w Sawmill Flat Rd & Springfield Dr	213	213	213	7,900	8,712	8,747	8,794	8,754	8,888	8,924	8,971	8,931
64		n/o Springfield Dr	213	213	213	8,066	8,665	8,695	8,798	8,744	9,036	9,139	9,279	9,163
65		s/o Calaveras County Line	5	5	5	4,071	4,495	4,497	4,547	4,539	4,730	4,799	4,786	4,777
66		s/o SR 108 / 49	213	213	213	2,640	3,212	3,212	3,090	3,075	3,503	3,461	3,215	3,348
67	Fifth Avenue	n/o SR 108 / 49	213	213	213	792	2,376	2,376	2,376	2,376	2,455	2,455	2,455	2,455
68		b/w Lyons Bald Mt Rd/Lyons Rd & Cabezut Rd	212	212	212	5,868	10,591	10,651	10,456	10,598	11,091	11,724	11,213	11,430
69	Greenley Road	b/w Cabezut Rd/ Morning Star Rd & Delnero Dr	212	212	212	11,332	15,500	15,505	15,383	15,539	15,932	16,585	16,132	16,221
70		b/w Delnero Dr & Mono Way	209	209	209	15,317	19,432	19,405	19,207	19,362	19,873	20,461	19,979	20,060
71		b/w County Line & Bonds Flat Rd	5	5	5	2,703	3,051	3,046	3,048	3,042	3,247	3,265	3,241	3,235
72	La Grange Road	b/w Bonds Flat Rd & Red Hills Rd	5	5	5	2,868	3,650	3,818	4,191	4,268	4,073	4,503	4,736	4,867
73		b/w Red Hills Rd & SR 108-SR 120	5	5	5	2,399	3,201	3,369	3,740	3,818	3,639	4,068	4,297	4,426
74		b/w Camp Seco Rd & 3rd Ave	213	213	213	1,050	1,122	1,107	1,175	1,174	1,193	1,221	1,226	1,273
75	Seco Street	b/w 3rd Ave & Main St	213	213	213	2,902	3,590	3,541	4,118	3,684	3,979	3,859	4,399	3,919
76		s/o Campo Seco Rd	213	213	213	1,036	1,068	1,068	1,068	1,068	1,089	1,089	1,089	1,089
77		b/w Mono Way & Lambert lake Rd	212	212	208	15,203	15,768	15,802	15,884	15,783	19,553	19,397	19,627	19,175
78	Tuolumne Road	b/w Lambert Lake Rd & Hess Ave	212	212	208	13,042	14,055	13,741	13,930	13,741	14,466	14,331	14,476	14,110
79		b/w Hess Ave & Wards Ferry Rd	212	212	212	12,283	13,115	12,913	13,085	12,853	13,733	13,582	13,697	13,335
80		b/w Wards Ferry Rd & Standard Rd	212	212	212	11,745	12,651	12,398	12,590	12,300	13,129	12,934	13,059	12,670
81		b/w Standard Rd & Woodhams Carne	6	6	6	11,955	13,115	12,918	13,002	12,715	13,380	13,179	13,264	12,972
82		b/w Woodhams Carne & Cherokee Rd	6	6	6	11,848	12,803	12,624	12,704	12,459	13,399	13,214	13,200	12,818
83	Wards Ferry Road	s/o Yosemite Rd	9	9	9	2,399	2,472	2,472	2,472	2,472	2,522	2,522	2,522	2,522
84		s/o Tuolumne Rd	213	213	213	1,799	1,854	1,854	1,854	1,854	1,891	1,891	1,891	1,891
85	Twain Harte Drive	n/o Hunts Rd	213	213	213	3,642	3,894	3,845	3,851	3,863	3,973	4,179	3,929	3,941
86		w/o East Ave	213	213	213	4,466	4,859	4,822	4,784	4,845	5,149	5,005	5,244	5,128
87		e/o Tiffeni Dr (eastern Most)	213	213	213	1,914	2,142	2,096	2,072	2,112	2,382	2,224	2,481	2,376
88	Shaws Flat Road	s/o SR 49	213	213	213	3,057	3,150	3,150	3,150	3,150	3,214	3,214	3,214	3,214
89		n/o SR 49	213	213	213	1,989	2,050	2,050	2,050	2,050	2,351	2,387	2,447	2,442
90	Jamestown Road	s/o Shaws Flat Rd	213	213	213	2,486	2,562	2,562	2,562	2,562	2,613	2,665	2,694	2,713
91		s/o Racetrack Rd	213	213	213	3,134	3,229	3,229	3,229	3,229	3,362	3,457	3,506	3,519
92		b/w Golf links & Fifth Ave	213	213	213	2,798	2,883	2,883	2,883	2,883	3,307	3,440	3,452	3,459
93	Rawhide Road	n/o SR 49 & 108 (by the Bridge)	213	213	213	4,149	4,275	4,275	4,321	4,558	4,609	4,513	4,511	4,685
94		s/o SR 49 (near Tuttletown)	8	8	8	2,407	2,480	2,480	2,480	2,671	2,715	2,609	2,530	2,725
95	Phoenix Lake Road	e/o Creekside Dr	213	213	213	2,095	2,534	2,703	2,647	2,654	2,585	2,758	2,700	2,708
96		e/o Paseo de Los Portales	213	213	213	4,796	5,798	6,068	5,778	5,949	5,915	6,190	5,895	6,069
97		e/o Ridgewood	213	213	213	5,495	6,448	6,775	6,492	6,650	6,578	6,912	6,623	6,784
98		e/o Hess Ave	213	213	213	7,746	8,803	9,250	9,026	9,131	8,981	9,437	9,208	9,315
99		w/o Hess Ave	213	213	213	4,729	4,873	5,129	5,028	5,143	4,971	5,233	5,129	5,247
100	Old Wards Ferry Road	s/o Sanguinetti Rd (n/o of Walmart & Lowes Driveway)	209	209	209	7,116	7,389	7,332	7,524	7,423	7,538	7,480	7,676	7,573
101		1/4 mile s/o Sanguinetti Rd (over Highway 108)	213	213	213	805	829	829	829	829	846	846	850	846
102		s/o Jacobs Rd	8	8	8	502	556	551	602	576	567	562	614	588
103	Soulsbyville Road	s/o Black Oak Dr	7	7	7	1,033	1,139	1,174	1,140	1,170	1,162	1,198	1,221	1,194
104		s/o Willow Springs Dr	213	213	213	1,817	2,203	2,256	2,119	2,169	2,247	2,302	2,162	2,213
105	Tuolumne Rd North	n/o of SR 108	213	213	213	6,457	7,416	7,348	7,117	7,219	7,566	8,492	7,824	7,365
106		b/w Tuolumne Rd & Black Oak Casino Entrance St	6	6	6									

Appendix Table 10 - Future Year Average Daily Traffic (ADT) Volume Forecasts

#	Roadway/Highway Segment	2015 Type #	2030 Type #	2040 Type #	Existing (2015) ADT	Year 2030 - Distinctive Communities Proposed	Year 2030 - Public Services Proposed	Year 2030 - Recent Trends Existing	Year 2030 - Recent Trends Proposed	Year 2040 - Distinctive Communities Proposed	Year 2040 - Public Services Proposed	Year 2040 - Recent Trends Existing	Year 2040 - Recent Trends Proposed	
115	S Washington St	n/o SR 108	212	212	212	10,859	11,977	11,982	13,191	13,022	12,715	12,721	14,004	13,825
116		b/w Restano Way & Church St	212	212	212	18,595	16,678	16,600	16,687	16,497	17,706	17,623	17,716	17,514
117	Sanguinetti Rd	b/w Mono Way & S Greenley Rd (eb one-way)	213	213	213	4,299	4,430	4,430	4,437	4,430	4,519	4,519	4,527	4,519
118		b/w S Greenley Rd & Fir Dr	209	209	209	8,500	11,397	11,282	11,542	11,532	12,932	13,136	13,231	12,364
119		b/w Fir Dr & Mono Way	213	213	213	3,182	4,217	4,274	5,013	4,646	7,289	6,305	5,952	6,097
120	Peaceful Oak Dr	n/o SR 108 Bypass	213	213	213	596	614	614	614	614	627	627	627	627
121		b/w SR 108 Ramps	212	212	212	2,663	2,850	2,829	2,872	2,849	2,908	2,886	2,930	2,906
122		b/w Mono Way and SR 108	208	208	208	5,316	5,510	5,503	5,578	5,549	6,128	6,075	5,691	6,072
123	Other Roads	Bell Mooney Rd, w/o Jacksonville Rd	213	213	213	148	153	153	153	153	156	156	156	156
124		Big Hill Rd, b/w Sawmill Flat Rd & N Bald Mountain Rd	107	107	107	1,169	1,205	1,205	1,205	1,205	1,229	1,229	1,229	1,229
125		Black Oak Rd, n/o Tuolumne Rd	9	9	9	1,586	1,743	1,739	1,725	1,713	1,778	1,774	1,760	1,748
126		Bonanza Rd, w/o Snell Rd	213	213	213	1,330	1,560	1,549	1,441	1,370	1,591	1,580	1,470	1,521
127		Bonds Flat Rd, e/o La Grange Rd	6	6	6	1,113	1,561	1,690	2,082	2,140	1,784	2,207	2,466	2,547
128		Campo Seco Rd, e/o Seco Rd	213	213	213	1,454	1,498	1,498	1,498	1,498	1,528	1,528	1,528	1,528
129		Cherokee Rd, w/o Tuolumne Rd North	8	8	8	1,656	1,746	1,706	1,752	1,706	1,889	1,807	1,863	1,741
130		Chicken Ranch Rd, w/o SR 108	11	11	11	1,406	1,449	1,449	1,450	1,449	1,478	1,478	1,479	1,478
131		Draper Mine Rd, e/o SR 108 & SR 49	213	213	213	942	992	992	1,040	994	1,084	1,107	1,160	1,140
132		East Ave, s/o Twain Harte Dr	213	213	213	1,392	1,554	1,559	1,566	1,589	1,648	1,738	1,697	1,686
133		Ferretti Road, s/o Pine Mt Dr	7	7	7	2,870	2,973	2,973	2,957	3,026	3,099	3,213	3,072	3,160
134		Golf Links Rd, n/o SR 108	213	213	213	1,032	1,294	1,374	1,334	1,314	1,358	1,450	1,386	1,369
135		Hess Ave, b/w SR 108 & Mono Way	212	212	212	8,137	9,296	9,263	9,048	9,034	9,484	9,450	9,231	9,216
136		Jacksonville Rd, s/o Twist Ave	6	6	6	1,301	1,341	1,341	1,341	1,341	1,368	1,368	1,368	1,368
137		Jacobs Rd, w/o Old Wards Ferry Rd	8	8	8	596	614	614	614	614	627	627	627	627
138		Lime Kiln Rd, s/o Campo Seco Rd & SR 108	213	213	213	3,973	4,094	4,094	4,125	4,099	4,176	4,245	4,208	4,201
139		Lyons Bald Mt.Rd, e/o Greenley Rd	213	213	213	1,709	1,790	1,864	1,914	1,956	1,871	1,909	2,010	2,105
140		Lyons St, w/o Greenley Rd	213	213	213	5,501	5,668	5,668	5,668	5,668	5,783	5,783	5,783	5,783
141		Main St (Jamestown), n/o Donovan St	213	213	213	1,526	1,572	1,572	1,572	1,572	1,604	1,604	1,604	1,604
142		Merrell Rd, s/o SR 120	9	9	9	480	495	495	495	495	505	505	505	505
143		Moringstar Dr, w/o Greenley Rd	213	213	213	1,517	1,563	1,563	1,563	1,563	1,625	1,598	1,631	1,603
144		Old Priest Grade, 1/2 Mile e/o SR 120	109	109	109	2,172	2,238	2,238	2,238	2,238	2,283	2,283	2,283	2,283
145		Sawmill Flat Rd, e/o Parrots Ferry Rd	213	213	213	2,300	2,849	2,850	2,993	2,963	2,962	3,029	3,226	3,158
146		Smith Station Rd, s/o SR 120	6	6	6	537	598	597	597	596	632	637	631	629
147		Snell Rd-Racetrack Rd, n/o Bonanza Rd	213	213	213	3,586	3,695	3,695	3,695	3,695	3,770	3,770	3,770	3,770
148		South Greenley Rd, b/w Mono Way & Sanguinetti Rd	208	208	208	8,815	13,025	12,842	12,323	12,363	14,812	14,950	14,931	14,163
149		Springfield Rd, n/o Horseshoe Bend Rd	213	213	213	1,892	1,950	1,950	1,950	1,950	2,213	2,246	2,314	2,293
150		Woodhams Carne Rd, s/o Tuolumne Rd	9	9	9	1,473	1,518	1,518	1,518	1,518	1,548	1,548	1,548	1,548
151		Yankee Hill Rd, e/o Bigler St	213	213	213	1,149	1,184	1,184	1,184	1,184	1,208	1,208	1,208	1,208
152		Willow Springs Dr, e/o Bonnie St	11	11	11	2,707	2,881	2,991	2,789	2,872	3,037	3,051	2,973	3,066
		Sum:				1,031,505	1,150,560	1,150,568	1,159,095	1,155,043	1,231,094	1,242,058	1,239,333	1,233,488

Note: All volumes shown are Average Daily Traffic (ADT).

= Improved under 2030 conditions.

= Improved under 2040 conditions.

Appendix Table 11 - Future Year Roadway Level of Service (LOS)

#	Roadway/Highway Segment	2015 Type #	2030 Type #	2040 Type #	Minimum LOS Standard*	Existing (2015) LOS	Year 2030 - Distinctive Communities Proposed	Year 2030 - Public Services Proposed	Year 2030 - Recent Trends Existing	Year 2030 - Recent Trends Proposed	Year 2040 - Distinctive Communities Proposed	Year 2040 - Public Services Proposed	Year 2040 - Recent Trends Existing	Year 2040 - Recent Trends Proposed
1	w/o Tulloch rd	1	1	1	D	B	C	C	C	C	C	C	C	C
2	b/w O'Byrnes Ferry Rd & La Grange Rd	4	1	1	D	D	C	C	C	C	D	D	D	D
3	b/w O'Byrnes Ferry Rd & SR 120	4	1	1	D	D	D	D	D	D	D	D	D	D
4	b/w East Jct SR 120 and West Jct SR 49	4	1	1	D	D	D	D	D	D	D	D	D	D
5	b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	210	210	210	D	D	E	E	E	E	E	E	E	E
6	w/o Mono Way	204	204	204	D	D	D	D	D	D	D	D	D	D
7	b/w Mono Way and Hess Ave	204	204	204	D	D	D	D	D	D	D	D	D	D
8	b/w Hess Ave and Peaceful Oak Rd	204	204	204	D	C	C	C	C	C	C	C	C	C
9	b/w Peaceful Oak Rd and Mono Way	204	204	204	D	C	C	C	C	C	C	C	C	C
11	b/w Mono Way and Soulsbyville Rd	210	210	208	D	D	D	D	D	D	A	A	A	A
12	b/w Soulsbyville Rd and W Conn. Twain Harte Dr	208	208	208	D	A	A	A	A	A	A	A	A	A
13	b/w W & E Conn Twain Harte Dr	203	203	203	D	A	A	A	A	A	B	B	B	B
14	e/o East Conn. Twain Hart Rd	211	211	211	D	C	C	C	C	C	C	C	C	C
15	w/o Chief Fuller Rd	211	211	211	D	B	B	B	B	B	C	C	C	C
16	e/o Chief Fuller Rd	211	211	211	D	B	B	B	B	B	B	B	B	B
17	w/o West Long Barn Conn.	5	5	5	D	B	B	B	B	B	B	B	B	B
18	b/w West Long Barn Conn. and East Long Barn Conn.	5	5	5	D	B	B	B	B	B	B	B	B	B
19	b/w Kennedy Meadows Rd and Tuolumne/ Mono Countyline	5	5	5	D	A	A	A	A	A	A	A	A	A
20	n/o Tuolumne/Mariposa County Line	5	5	5	D	A	A	A	A	A	A	A	A	A
21	s/o South Jct SR 120	5	5	5	D	A	A	A	A	A	A	A	A	A
22	n/o North SR 120 Jct	5	5	5	D	A	B	B	B	B	B	B	B	B
23	b/w SR 49 (Montezuma Jct) & Bell Mooney Rd	4	1	1	D	D	D	D	D	D	D	D	D	D
24	b/w Bell Mooney Rd and South Jct Main St	211	208	208	D	E	B	B	B	B	B	C	C	C
25	b/w South Jct Main St and Rawhide Rd	210	208	208	D	D	B	C	C	C	C	C	C	C
26	b/w Rawhide Rd and Fifth Ave	210	208	208	D	D	C	C	C	C	D	D	D	D
27	b/w Fifth Ave and East Jct SR 108	210	208	208	D	E	D	D	D	D	D	D	D	D
28	btn SR 108 and Fairview Lane (Ponderosa)	210	210	210	D	C	C	C	C	C	C	C	C	C
29	b/w Fairview Lane and Southgate Dr	210	210	210	D	C	C	C	C	C	C	C	C	C
30	b/w Southgate Dr and Washington St	210	210	210	D	C	C	C	C	C	D	D	D	D
31	b/w Stockton Rd and Dodge St	211	211	211	D	E	E	E	E	E	E	E	E	E
32	n/o Dodge St	211	211	211	D	E	D	D	D	D	D	D	E	D
33	s/o N Washington St / Columbia Way	211	211	211	D	E	C	D	D	C	D	D	D	D
34	n/o N Washington St / Columbia Way	210	208	208	D	D	A	A	A	A	A	A	A	A
35	e/o Parrots Ferry Rd (Columbia WYE)	211	208	208	D	D	A	A	A	A	A	A	A	A
36	w/o Parrots Ferry Rd (Columbia WYE)	211	211	211	D	B	B	B	B	B	B	B	B	B
37	e/o Rawhide Rd	5	5	5	D	B	B	B	B	C	C	C	C	C
38	b/w Rawhide Rd and Turtletown	5	5	5	D	B	B	B	B	B	B	B	B	B
39	b/w Turtletown and Tuolumne / Calveras County Line	5	5	5	D	B	C	C	C	C	C	C	C	C
40	b/w Tulloch Rd and La Grange Rd	1	1	1	D	B	C	C	C	C	C	C	C	C
42	b/w East Jct 108 and North Jct SR 49	5	5	5	D	A	B	A	B	B	B	B	B	B
43	b/w North Jct SR 49 and Jacksonville Rd	5	5	5	D	B	B	B	B	B	B	B	B	B
44	b/w Jacksonville Rd and South Jct SR 49	5	5	5	D	B	B	B	B	C	C	C	C	C
45	b/w South Jct SR 49 and Priest-Coulterville Rd	5	5	5	D	B	B	B	B	B	C	B	B	B
46	w/o Ferretti Rd (Groveland Townsite)	5	5	5	D	B	B	B	B	B	B	B	B	B
47	e/o Ferretti Rd (Groveland Townsite)	5	5	5	D	B	C	C	C	C	C	C	C	C
48	w/o Hells Hollow Rd	5	5	5	D	B	B	B	B	B	B	B	B	B
49	e/o Smiths Station Rd	5	5	5	D	B	B	B	B	B	B	B	B	B
50	w/o Cherry Valley/Lake Rd	5	5	5	D	B	B	B	B	B	B	B	B	B
51	w/o Yosemite Park West Boundary	5	5	5	D	B	B	B	B	B	B	B	B	B
52	w/o Sanguinetti Rd	210	210	210	D	E	E	E	D	D	E	E	E	E
53	b/W Sanguinetti Rd & Greenley Rd	208	208	208	D	A	A	A	A	A	A	A	A	A
54	b/w Greenley Rd & Fir Dr	208	208	208	D	A	B	B	B	B	B	B	B	B
55	b/w Fir Dr & Tuolumne Rd	208	208	208	D	C	C	D	D	D	D	D	D	D
56	b/w Tuolumne Rd & Hess Ave	208	208	208	D	A	A	A	A	A	A	A	A	A
57	b/w Hess Ave & Standard Rd / Peaceful Oak Dr	210	210	208	D	C	C	D	D	A	A	A	A	A
58	b/w Standard Rd/Peaceful Oak Dr & SR 108	211	211	211	D	C	C	C	C	C	C	C	C	C

Appendix Table 11 - Future Year Roadway Level of Service (LOS)

#	Roadway/Highway Segment		2015 Type #	2030 Type #	2040 Type #	Minimum LOS Standard*	Existing (2015) LOS	Year 2030 - Distinctive Communities Proposed	Year 2030 - Public Services Proposed	Year 2030 - Recent Trends Existing	Year 2030 - Recent Trends Proposed	Year 2040 - Distinctive Communities Proposed	Year 2040 - Public Services Proposed	Year 2040 - Recent Trends Existing	Year 2040 - Recent Trends Proposed
59	Standard Road	b/w Tuolumne Rd & Mono Way	213	213	213	D	B	B	B	B	B	C	C	C	C
60	Cabezut Road	b/w Greenly Rd and Shannon Dr	212	212	212	D	B	B	B	B	B	C	C	C	C
61		e/o Shannon Dr	213	213	213	D	A	A	A	A	A	A	A	A	A
62	Parrotts Ferry Road	b/w SR 49 & Sawmill Flat Rd	213	213	213	D	D	D	D	D	D	D	D	E	E
63		b/w Sawmill Flat Rd & Springfield Dr	213	213	213	D	C	C	C	C	C	C	C	C	C
64		n/o Springfield Dr	213	213	213	D	C	C	C	C	C	C	C	D	C
65		s/o Calaveras County Line	5	5	5	D	B	B	B	B	B	B	B	B	B
66	Fifth Avenue	s/o SR 108 / 49	213	213	213	D	A	B	B	B	B	B	B	B	B
67		n/o SR 108 / 49	213	213	213	D	A	A	A	A	A	A	A	A	A
68	Greenley Road	b/w Lyons Bald Mt Rd/Lyons Rd & Cabezut Rd	212	212	212	D	B	C	C	C	C	C	D	C	C
69		b/w Cabezut Rd/ Morning Star Rd & Delnero Dr	212	212	212	D	C	D	D	D	D	E	E	E	E
70		b/w Delnero Dr & Mono Way	209	209	209	D	A	B	B	B	B	B	B	B	B
71	La Grange Road	b/w County Line & Bonds Flat Rd	5	5	5	D	A	A	A	A	A	B	B	B	B
72		b/w Bonds Flat Rd & Red Hills Rd	5	5	5	D	A	B	B	B	B	B	B	B	B
73		b/w Red Hills Rd & SR 108-SR 120	5	5	5	D	A	B	B	B	B	B	B	B	B
74	Seco Street	b/w Camp Seco Rd & 3rd Ave	213	213	213	D	A	A	A	A	A	A	A	A	A
75		b/w 3rd Ave & Main St	213	213	213	D	B	B	B	B	B	B	B	B	B
76		s/o Campo Seco Rd	213	213	213	D	A	A	A	A	A	A	A	A	A
77	Tuolumne Road	b/w Mono Way & Lambert lake Rd	212	212	208	D	D	D	E	E	D	A	A	A	A
78		b/w Lambert Lake Rd & Hess Ave	212	212	208	D	D	D	D	D	D	A	A	A	A
79		b/w Hess Ave & Wards Ferry Rd	212	212	212	D	D	D	D	D	D	D	D	D	D
80		b/w Wards Ferry Rd & Standard Rd	212	212	212	D	D	D	D	D	D	D	D	D	D
81		b/w Standard Rd & Woodhams Carne	6	6	6	D	D	D	D	D	D	D	D	D	D
82		b/w Woodhams Carne & Cherokee Rd	6	6	6	D	D	D	D	D	D	D	D	D	D
83	Wards Ferry Road	s/o Yosemite Rd	9	9	9	D	B	B	B	B	B	B	B	B	B
84		s/o Tuolumne Rd	213	213	213	D	A	A	A	A	A	A	A	A	A
85	Twain Harte Drive	n/o Hunts Rd	213	213	213	D	B	B	B	B	B	B	B	B	B
86		w/o East Ave	213	213	213	D	B	B	B	B	B	B	B	B	B
87		e/o Tiffeni Dr (eastern Most)	213	213	213	D	A	A	A	A	A	A	A	A	A
88	Shaws Flat Road	s/o SR 49	213	213	213	D	B	B	B	B	B	B	B	B	B
89		n/o SR 49	213	213	213	D	A	A	A	A	A	A	A	A	A
90	Jamestown Road	s/o Shaws Flat Rd	213	213	213	D	A	A	A	A	A	A	A	A	B
91		s/o Racetrack Rd	213	213	213	D	B	B	B	B	B	B	B	B	B
92		b/w Golf links & Fifth Ave	213	213	213	D	B	B	B	B	B	B	B	B	B
93	Rawhide Road	n/o SR 49 & 108 (by the Bridge)	213	213	213	D	B	B	B	B	B	B	B	B	B
94		s/o SR 49 (near Tuttletown)	8	8	8	D	A	A	A	A	B	B	B	A	B
95	Phoenix Lake Road	e/o Creekside Dr	213	213	213	D	A	A	B	A	A	A	B	B	B
96		e/o Paseo de Los Portales	213	213	213	D	B	C	C	C	C	C	C	C	C
97		e/o Ridgewood	213	213	213	D	B	C	C	C	C	C	C	C	C
98		e/o Hess Ave	213	213	213	D	C	C	D	C	C	C	D	D	D
99		w/o Hess Ave	213	213	213	D	B	B	B	B	B	B	B	B	B
100	Old Wards Ferry Road	s/o Sanguinetti Rd (n/o of Walmart & Lowes Driveway)	209	209	209	D	A	A	A	A	A	A	A	A	A
101		1/4 mile s/o Sanguinetti Rd (over Highway 108)	213	213	213	D	A	A	A	A	A	A	A	A	A
102		s/o Jacobs Rd	8	8	8	D	A	A	A	A	A	A	A	A	A
103	Soulsbyville Road	s/o Black Oak Dr	7	7	7	D	A	A	A	A	A	A	A	A	A
104		s/o Willow Springs Dr	213	213	213	D	A	A	A	A	A	A	A	A	A
105		n/o of SR 108	213	213	213	D	C	C	C	C	C	C	C	C	C
106	Tuolumne Rd North	b/w Tuolumne Rd & Black Oak Casino Entrance St	6	6	6	D	B	B	B	B	B	B	B	B	B
107		n/o Mi Wu St	7	7	7	D	A	A	A	A	A	A	A	A	A
108		n/o East Ave	213	213	213	D	A	A	A	A	A	A	A	A	A
109	O'Byrnes Ferry Rd	n/o SR 108	7	7	7	D	C	C	C	C	C	C	C	C	C
110		n/o Prison/Calaveras County Line	7	7	7	D	B	B	B	B	B	B	B	B	B
111	Longeway Rd	e/o Soulsbyville Rd	213	213	213	D	C	C	C	C	C	D	D	D	D
112		e/o Crystal Falls Dr	213	213	213	D	B	B	B	B	B	B	B	B	B
113	Stewart St	b/w Lyons St & Elkin St	213	213	213	D	C	C	C	C	C	C	C	C	C
114		b/w Mono wWay/Restano Way & Church St	213	213	213	D	C	C	C	C	C	C	C	C	C

Appendix Table 11 - Future Year Roadway Level of Service (LOS)

#	Roadway/Highway Segment	2015 Type #	2030 Type #	2040 Type #	Minimum LOS Standard*	Existing (2015) LOS	Year 2030 - Distinctive Communities Proposed	Year 2030 - Public Services Proposed	Year 2030 - Recent Trends Existing	Year 2030 - Recent Trends Proposed	Year 2040 - Distinctive Communities Proposed	Year 2040 - Public Services Proposed	Year 2040 - Recent Trends Existing	Year 2040 - Recent Trends Proposed	
115	S Washington St	n/o SR 108	212	212	212	D	C	D	D	D	D	D	D	D	
116		b/w Restano Way & Church St	212	212	212	D	E	E	E	E	E	E	E	E	
117	Sanguinetti Rd	b/w Mono Way & S Greenley Rd (eb one-way)	213	213	213	D	B	B	B	B	B	B	B	B	
118		b/w S Greenley Rd & Fir Dr	209	209	209	D	A	A	A	A	A	A	A	A	
119		b/w Fir Dr & Mono Way	213	213	213	D	B	B	B	B	C	C	C	C	
120	Peaceful Oak Dr	n/o SR 108 Bypass	213	213	213	D	A	A	A	A	A	A	A	A	
121		b/w SR 108 Ramps	212	212	212	D	A	A	A	A	A	A	A	A	
122		b/w Mono Way and SR 108	208	208	208	D	A	A	A	A	A	A	A	A	
123		Bell Mooney Rd, w/o Jacksonville Rd	213	213	213	D	A	A	A	A	A	A	A	A	
124		Big Hill Rd, b/w Sawmill Flat Rd & N Bald Mountain Rd	107	107	107	D	A	A	A	A	A	A	A	A	
125		Black Oak Rd, n/o Tuolumne Rd	9	9	9	D	A	A	A	A	A	A	A	A	
126		Bonanza Rd, w/o Snell Rd	213	213	213	D	A	A	A	A	A	A	A	A	
127		Bonds Flat Rd, e/o La Grange Rd	6	6	6	D	A	A	A	A	A	A	A	A	
128		Campo Seco Rd, e/o Seco Rd	213	213	213	D	A	A	A	A	A	A	A	A	
129		Cherokee Rd, w/o Tuolumne Rd North	8	8	8	D	A	A	A	A	A	A	A	A	
130		Chicken Ranch Rd, w/o SR 108	11	11	11	C	A	A	A	A	A	A	A	A	
131		Draper Mine Rd, e/o SR 108 & SR 49	213	213	213	D	A	A	A	A	A	A	A	A	
132		East Ave, s/o Twain Harte Dr	213	213	213	D	A	A	A	A	A	A	A	A	
133		Ferretti Road, s/o Pine Mt Dr	7	7	7	D	A	B	B	B	B	B	B	B	
134		Golf Links Rd, n/o SR 108	213	213	213	D	A	A	A	A	A	A	A	A	
135		Hess Ave, b/w SR 108 & Mono Way	212	212	212	D	C	C	C	C	C	C	C	C	
136	Other Roads	Jacksonville Rd, s/o Twist Ave	6	6	6	D	A	A	A	A	A	A	A	A	
137		Jacobs Rd, w/o Old Wards Ferry Rd	8	8	8	D	A	A	A	A	A	A	A	A	
138		Lime Kiln Rd, s/o Campo Seco Rd & SR 108	213	213	213	D	B	B	B	B	B	B	B	B	
139		Lyons Bald Mt.Rd, e/o Greenley Rd	213	213	213	D	A	A	A	A	A	A	A	A	
140		Lyons St, w/o Greenley Rd	213	213	213	D	B	C	C	C	C	C	C	C	
141		Main St (Jamestown), n/o Donovan St	213	213	213	D	A	A	A	A	A	A	A	A	
142		Merrell Rd, s/o SR 120	9	9	9	D	A	A	A	A	A	A	A	A	
143		Moringstar Dr, w/o Greenley Rd	213	213	213	D	A	A	A	A	A	A	A	A	
144		Old Priest Grade, 1/2 Mile e/o SR 120	109	109	109	D	B	B	B	B	B	B	B	B	
145		Sawmill Flat Rd, e/o Parrots Ferry Rd	213	213	213	D	A	B	B	B	B	B	B	B	
146		Smith Station Rd, s/o SR 120	6	6	6	D	A	A	A	A	A	A	A	A	
147		Snell Rd-Racetrack Rd, n/o Bonanza Rd	213	213	213	D	B	B	B	B	B	B	B	B	
148		South Greenley Rd, b/w Mono Way & Sanguinetti Rd	208	208	208	D	A	A	A	A	A	A	A	A	
149		Springfield Rd, n/o Horseshoe Bend Rd	213	213	213	D	A	A	A	A	A	A	A	A	
150		Woodhams Carne Rd, s/o Tuolumne Rd	9	9	9	D	A	A	A	A	A	A	A	A	
151		Yankee Hill Rd, e/o Bigler St	213	213	213	D	A	A	A	A	A	A	A	A	
152		Willow Springs Dr, e/o Bonnie St	11	11	11	C	B	B	B	B	B	B	B	B	
Total Segments Below LOS Standard:							7	4	5	4	3	5	5	7	6

*Minimum acceptable LOS for Tuolumne County facilities (other than Local Roads) is LOS "D"(as defined by Tuolumne County Transportation Council). Minimum acceptable LOS for all Local Roads is LOS "C".

Minimum acceptable LOS for Caltrans facilities is LOS "D" (as defined by Caltrans and TCTC).

E = Operating Below LOS Standard.

B = Improved under 2030 conditions.

C = Improved under 2040 conditions.

Appendix Table 12 - County, City, and Community Sponsored Bicycle and Pedestrian Projects

ID	Project Name	Priority	Description	Construction Year
1	Dragoon Gulch Trail - Expansion Phase I	Tier 1b	Construct a new pedestrian, bicycle, and recreational facilities. This non-motorized trail will connect the West Sonora Community to Sonora and to the existing Dragoon Gulch trail system.	2030
2	Sugar Pine Railroad Regional Trail	Tier 2	Construct a regional trail on the former railroad ROW from Twain Harte to Tuolumne Road.	2040
3	Sonora to Columbia Regional Trail	Tier 1b	Construct a Class I bicycle path and a Class II bicycle lane from Sonora High to Columbia College.	2030
4	SR 108/49 Complete Streets Project	Tier 1b	Construct complete streets along SR 108/49 as part of the 5 lane widening from Bell Money Ave to Stockton Rd.	2040
5	Greenley Rd Extension Complete Streets Project	Tier 1b	Construct complete streets improvements as part of the future Greenley Road Extension.	2030
6	Columbia Pedestrian Facility	Tier 1b	Construct a Safe Routes to School project by adding new sidewalks along Parrotts Ferry Rd.	2030
7	Highway 49/Shaws Flat Gateway Project	Tier 1b	Construct a new roundabout or new signal with Safe Routes to School sidewalk crossing improvements at the intersection with Shaws Flat Rd, School Street, and Columbia Way.	2030
8	Southgate D & SR 49/Stockton Rd Intersection Improvements	Tier 1c	Construct geometric improvements to pedestrian crossings, at the intersection of SR 49 & Southgate Dr/Forest Drive/Wood Creek Park Dr.	2040
9	Groveland Sidewalks Project	Tier 1c	Construct a Safe Routes to School project by adding new sidewalk and improving existing pedestrian walkways along SR 120 in Groveland.	2040
10	Tuolumne Trail Project	Tier 1c	Construct a Safe Routes to School Project by adding a Class I Trail improvements along Tuolumne Road from Summerville Rd to North Tuolumne Rd/Cherry Valley Rd.	2040
11	Sonora to Jamestown Regional Trail	Tier 2	Construct a Class I and a Class II trail from Sonora High to Jamestown.	2040
12	Sierra Railroad Regional Trail	Tier 2	Construct a regional Class I trail along the Sierra RR (Rails with Trails) from Standard Townsite to the Tuolumne County Boundary line with Stanislaus County.	2040
13	Stockton Rd Complete Streets Project	Tier 2	Construct a sidewalk improvements and construct a new bicycle trail along Stockton Road. Connect Downtown Sonora with the Motherlode Fairgrounds.	2040
14	North Washington Complete Streets Project	Tier 2	Construct complete streets improvements along North Washington Street. Connect Downtown Sonora with North Sonora.	2040
15	South Washington Complete Streets Project	Tier 2	Construct complete streets improvements and construct a new bicycle trail along South Washington Street. Connect Downtown Sonora with the Innovation Lab.	2040
16	Dragoon Gulch Connector Trail	Tier 2	Construct a new class I pedestrian and bicycle trail that connects Dragoon Gulch with Sonora High, Downtown Sonora, and the Wood Creek Park.	2040

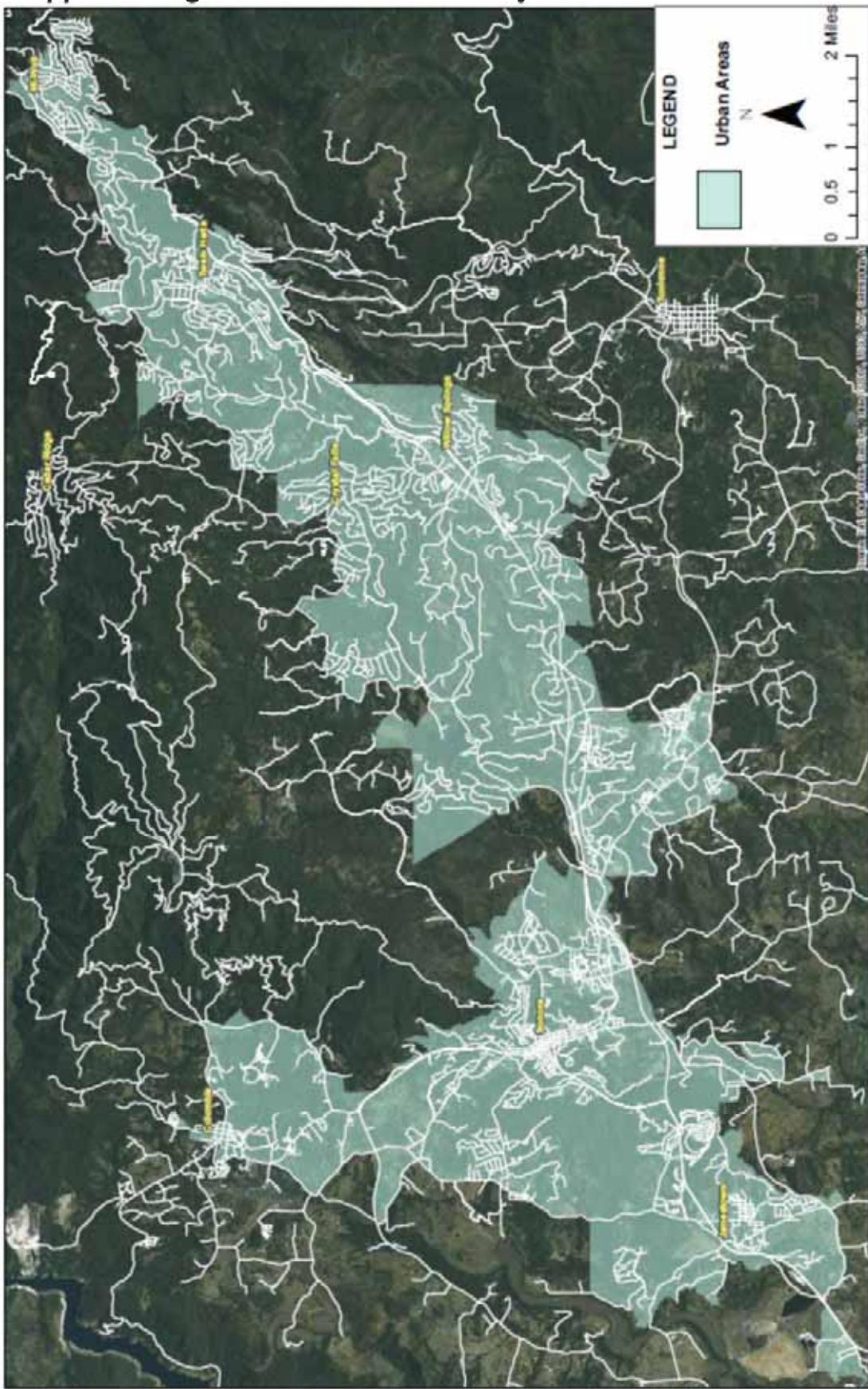
Appendix Table 13 - Tuolumne County Transit Projects

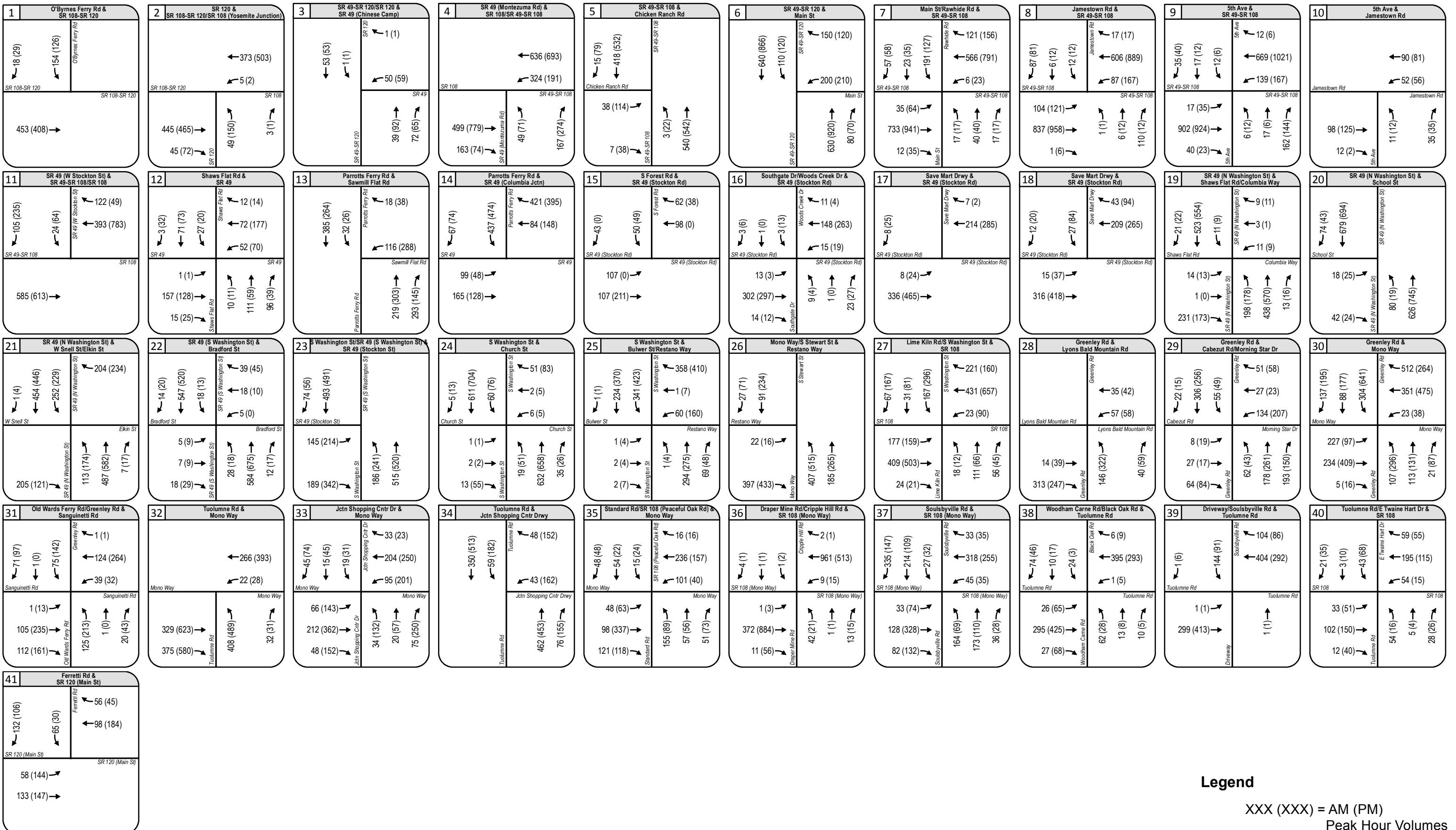
ID	Project Name	Priority	Description	Construction Year
1	Law & Justice Center Bus Transfer Facility	Tier 1a	Construct a new regional bus transfer facility along with road and cul de sac improvements for bus access.	2017
2	Transit Maintenance Facility Improvements - Phase 1 & 2	Tier 1a	Install a generator and fueling capability at the Transit Maintenance Facility.	2017
3	Existing Bus Stops	Tier 1a	Existing Bus Stop Shelter Improvements such as installing transit stop lighting, security cameras, and etc.	On-Going
4	Standard - Tuolumne Rd	Tier 1a	New Bus Stop Shelter.	2015
5	South Washington/Stockton Rd Bus Stop Facilities	Tier 1a	Two new bus stop shelters for Downtown Sonora along Stockton Rd/South Washington St.	2018
6	Restano Way/South Washington/Mono Way	Tier 1b	New Bus Stop Shelter.	TBD
7	Dragoon Gulch/Racetrack Rd	Tier 1b	New Bus Stop Shelter.	TBD
8	Sierra Village	Tier 1b	New Bus Stop Shelter.	TBD
9	Mono Village Center	Tier 1c	Replace existing Bus Stop Shelter.	TBD
10	Miwuk Village	Tier 1c	New Bus Stop Shelter.	TBD
11	Columbia Inter-County Transfer Point	Tier 2	New Bus Stop Shelter and bus transfer facility.	2030
12	Northern Yosemite Regional Transit Access Center	Tier 2	Purchase and make improvements for a Regional Transit Access Center building.	2030
13	Groveland Transit Stop Improvements	Tier 2	Construct bus stop improvements in Groveland.	2040
14	Sonora Plaza/Mono Way/Greenley Rd	Tier 2	New Bus Stop Shelter.	2040

Source: Tuolumne County Transportation Council

APPENDIX FIGURES

Appendix Figure 1 – Tuolumne County Urban Area Boundaries





Legend

XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2015 Existing Intersection Turning Movement Volumes (TMVs)

Tuolumne County EIR Traffic Study

APPENDIX FIGURE 2



Legend

XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2030 Intersection Turning Movement Volumes - Distinctive Communities (Proposed)

Tuolumne County EIR Traffic Study

APPENDIX FIGURE 3





Legend

XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2030 Intersection Turning Movement Volumes - Public Services (Proposed)

Tuolumne County EIR Traffic Study

APPENDIX FIGURE 4





Legend

XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2030 Intersection Turning Movement Volumes - Recent Trends (Existing)

Tuolumne County EIR Traffic Study

APPENDIX FIGURE 5





Legend

XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2030 Intersection Turning Movement Volumes - Recent Trends (Proposed)

Tuolumne County EIR Traffic Study

APPENDIX FIGURE 6





Legend

XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2040 Intersection Turning Movement Volumes - Distinctive Communities (Proposed)

Tuolumne County EIR Traffic Study

APPENDIX FIGURE 7



Year 2040 Intersection Turning Movement Volumes - Public Services (Proposed)

Tuolumne County EIR Traffic Study

APPENDIX FIGURE 8





Legend

XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2040 Intersection Turning Movement Volumes - Recent Trends (Existing)

Tuolumne County EIR Traffic Study

APPENDIX FIGURE 9



Legend

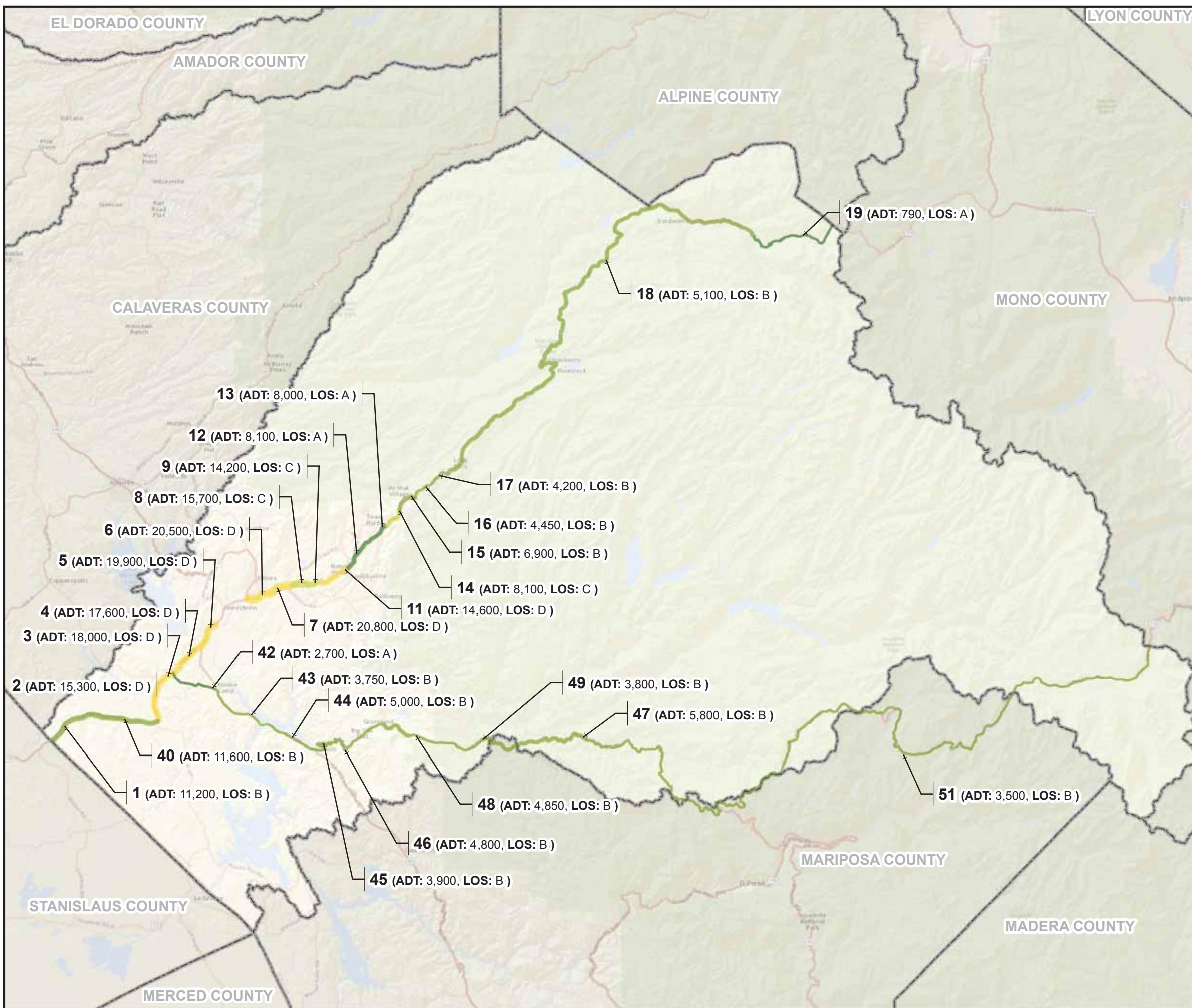
XXX (XXX) = AM (PM)
Peak Hour Volumes

Year 2040 Intersection Turning Movement Volumes - Recent Trends (Proposed)

Tuolumne County EIR Traffic Study

APPENDIX FIGURE 10

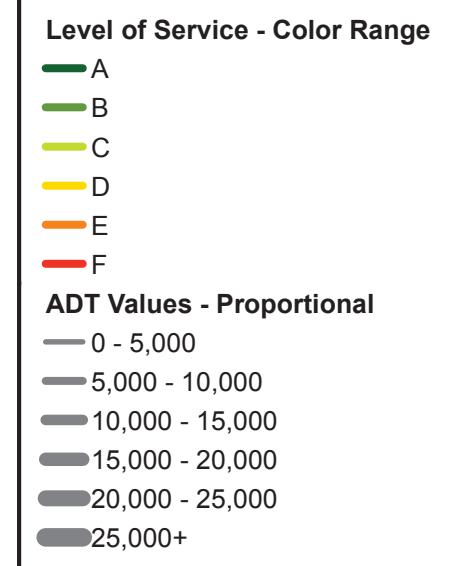




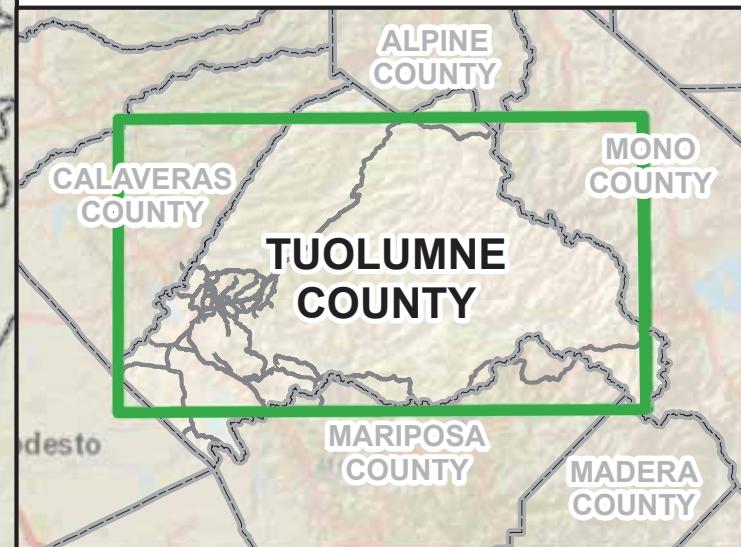
APPENDIX FIGURE 11-A: EXISTING DEFICIENCIES
SR 108 AND SR 120
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 17,500 35,000
Feet



LOCATION MAP

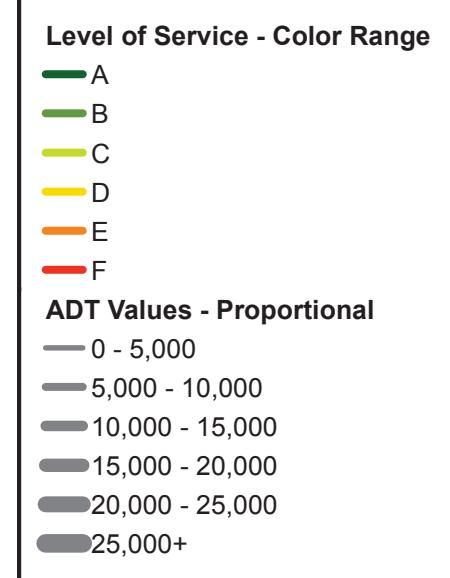


WOOD RODGERS

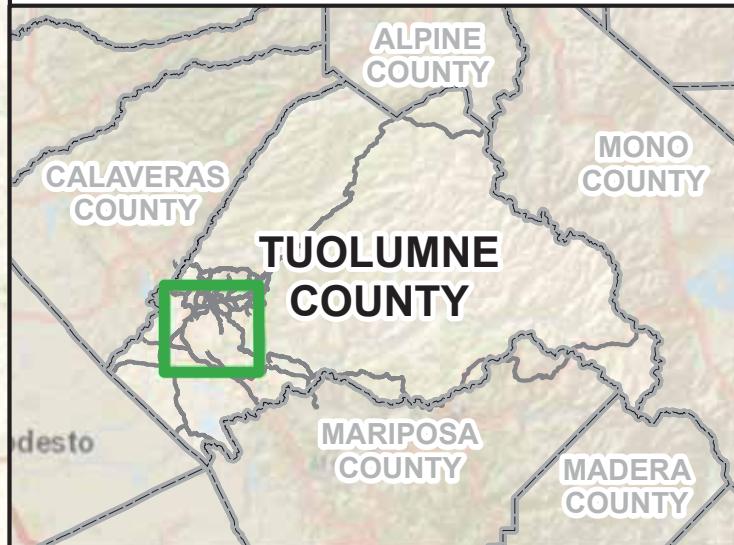
APPENDIX FIGURE 11-B: EXISTING DEFICIENCIES
SOUTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



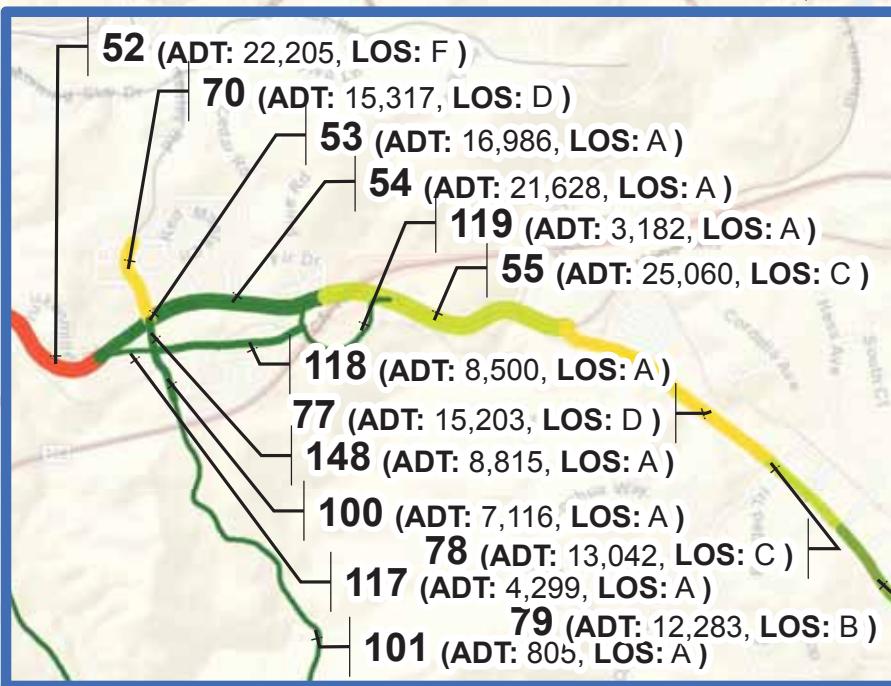
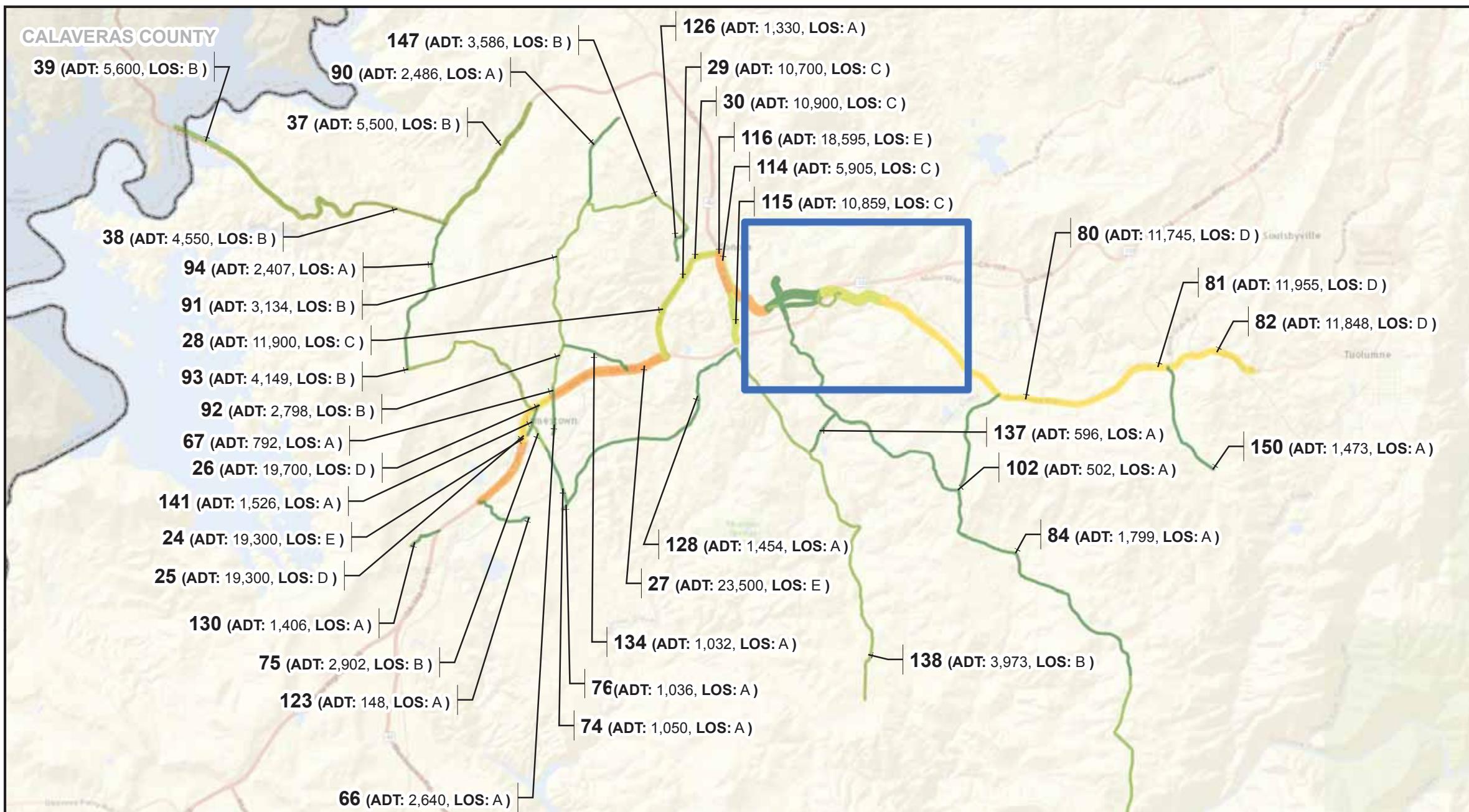
0 3,750 7,500
Feet



LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 11-C: EXISTING DEFICIENCIES
NORTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

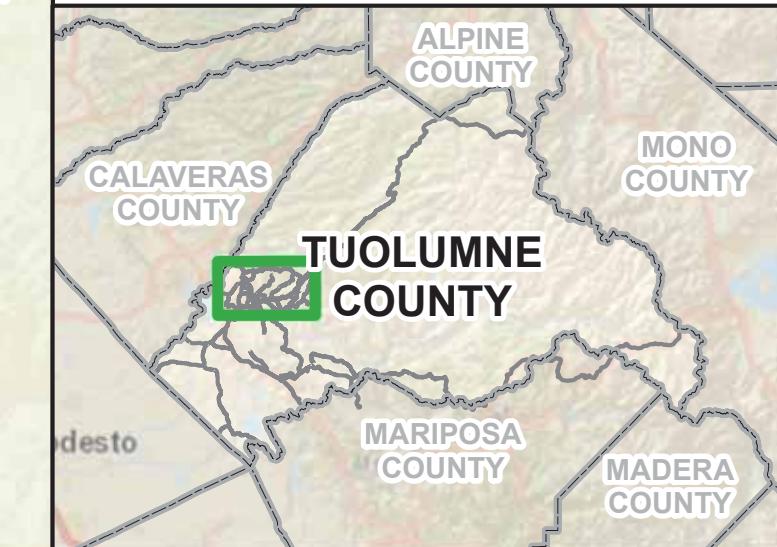
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

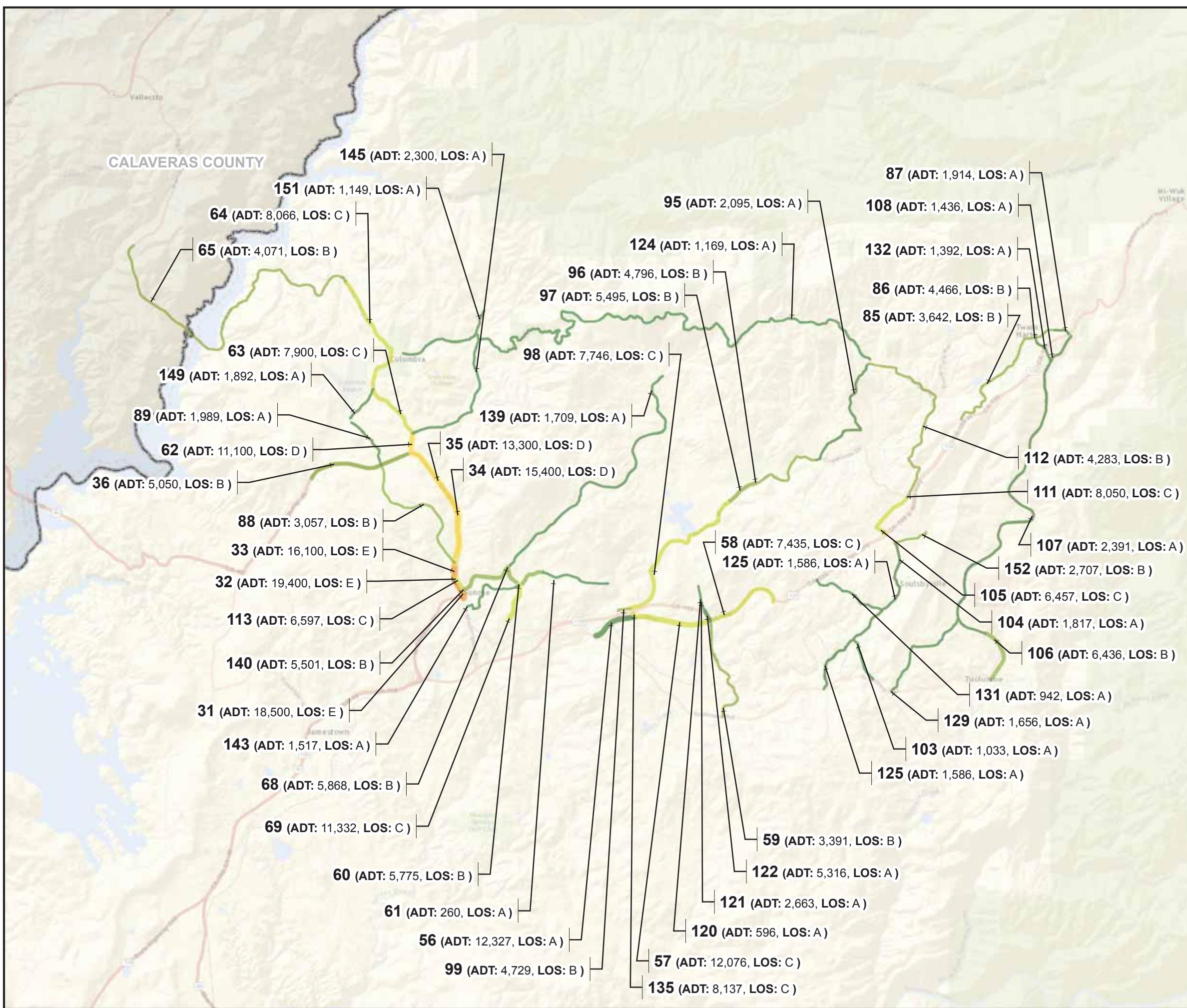
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 11-D: EXISTING DEFICIENCIES
GROVELAND AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 6,250 12,500
Feet

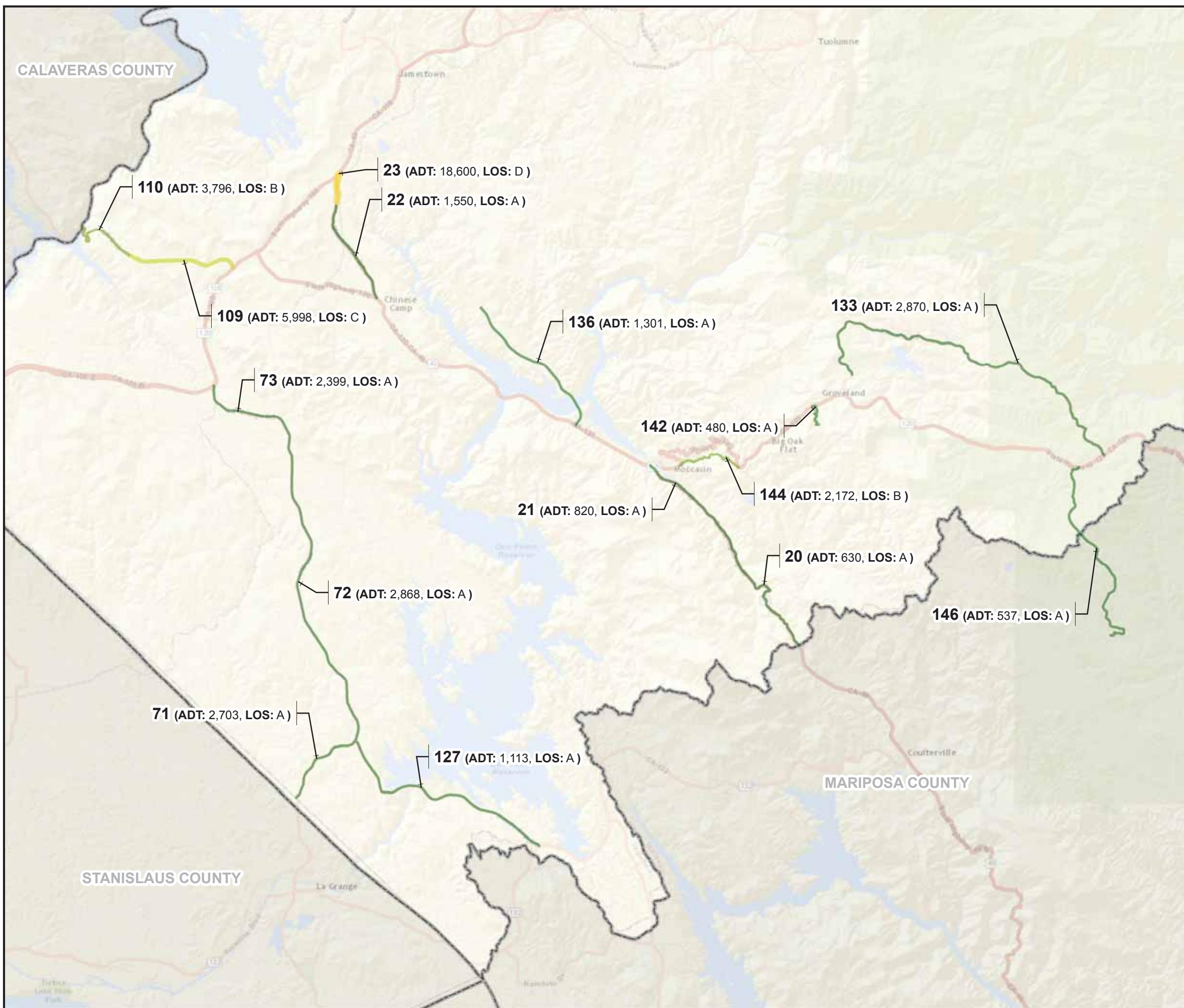
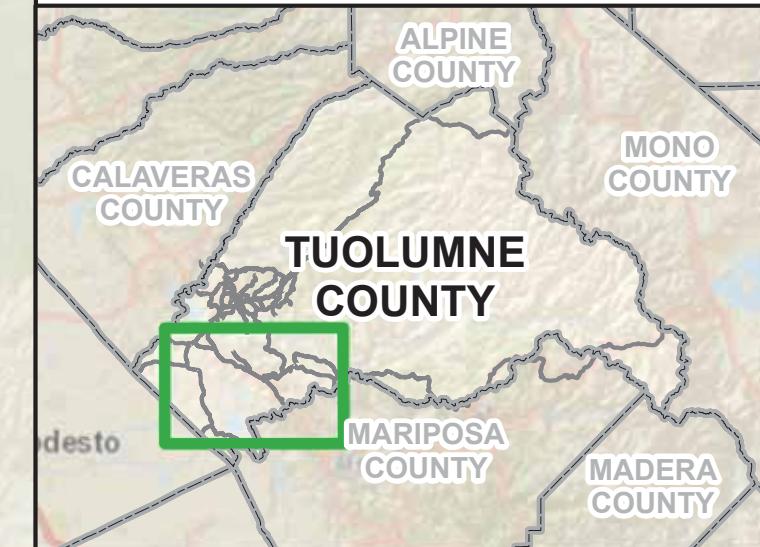
Level of Service - Color Range

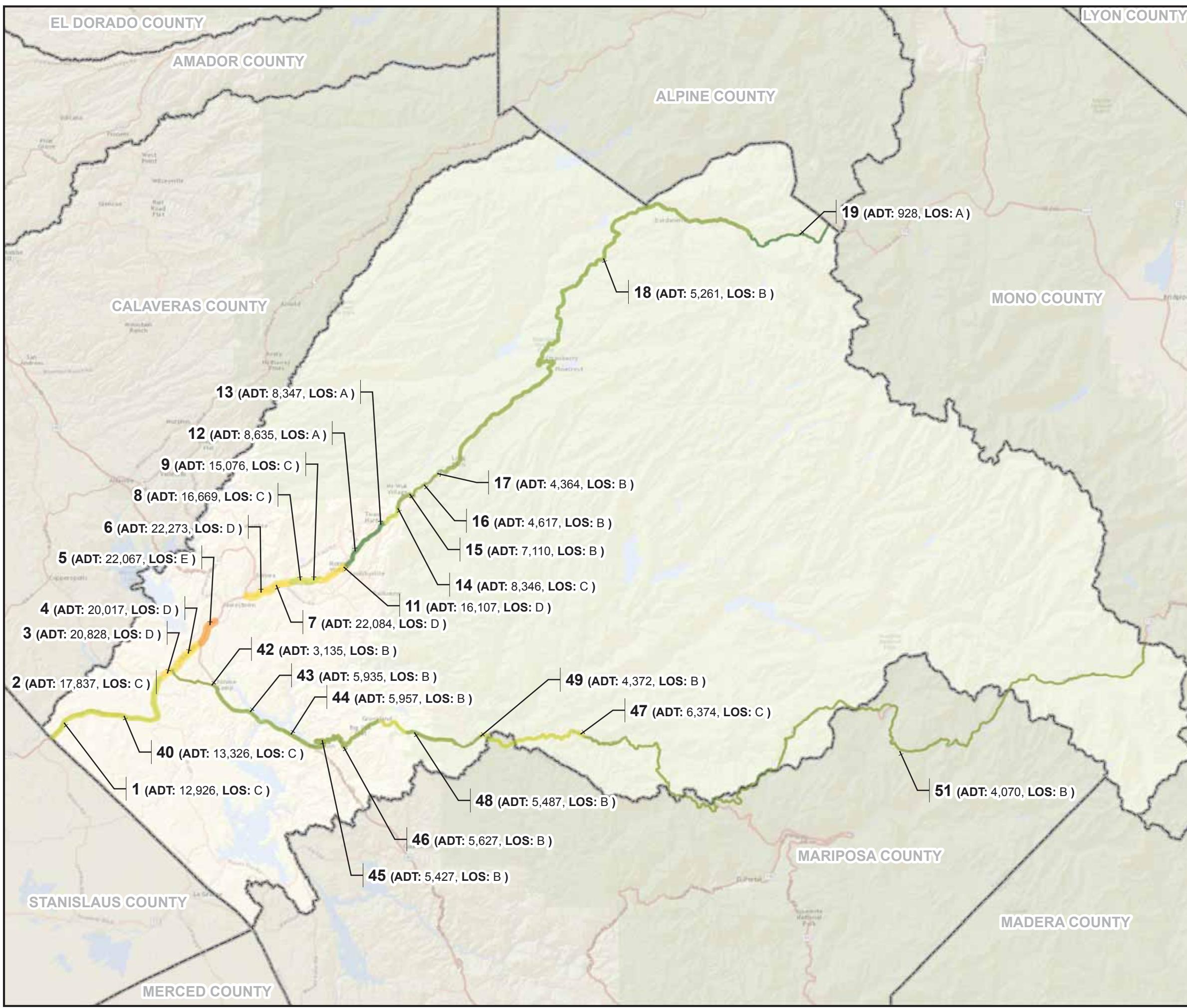
- A
- B
- C
- D
- E
- F

ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP





APPENDIX FIGURE 12-A: YEAR 2030
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
SR 108 AND SR 120
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 17,500 35,000
Feet

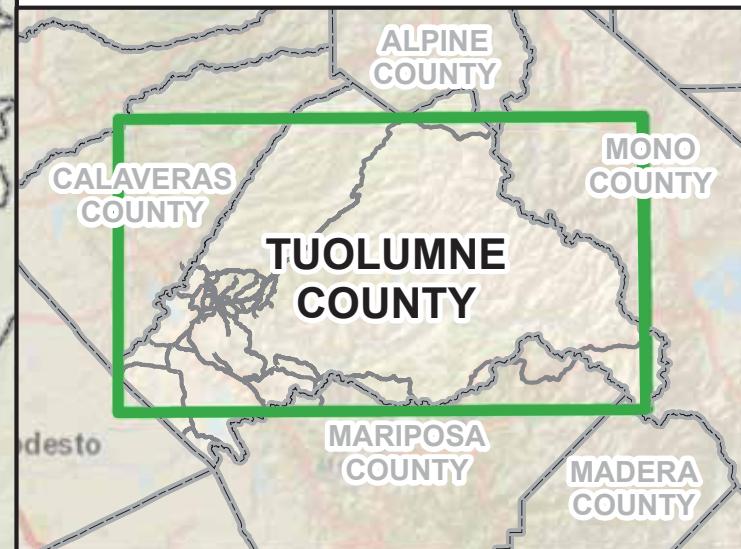
Level of Service - Color Range

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- B
- C
- D
- E
- F

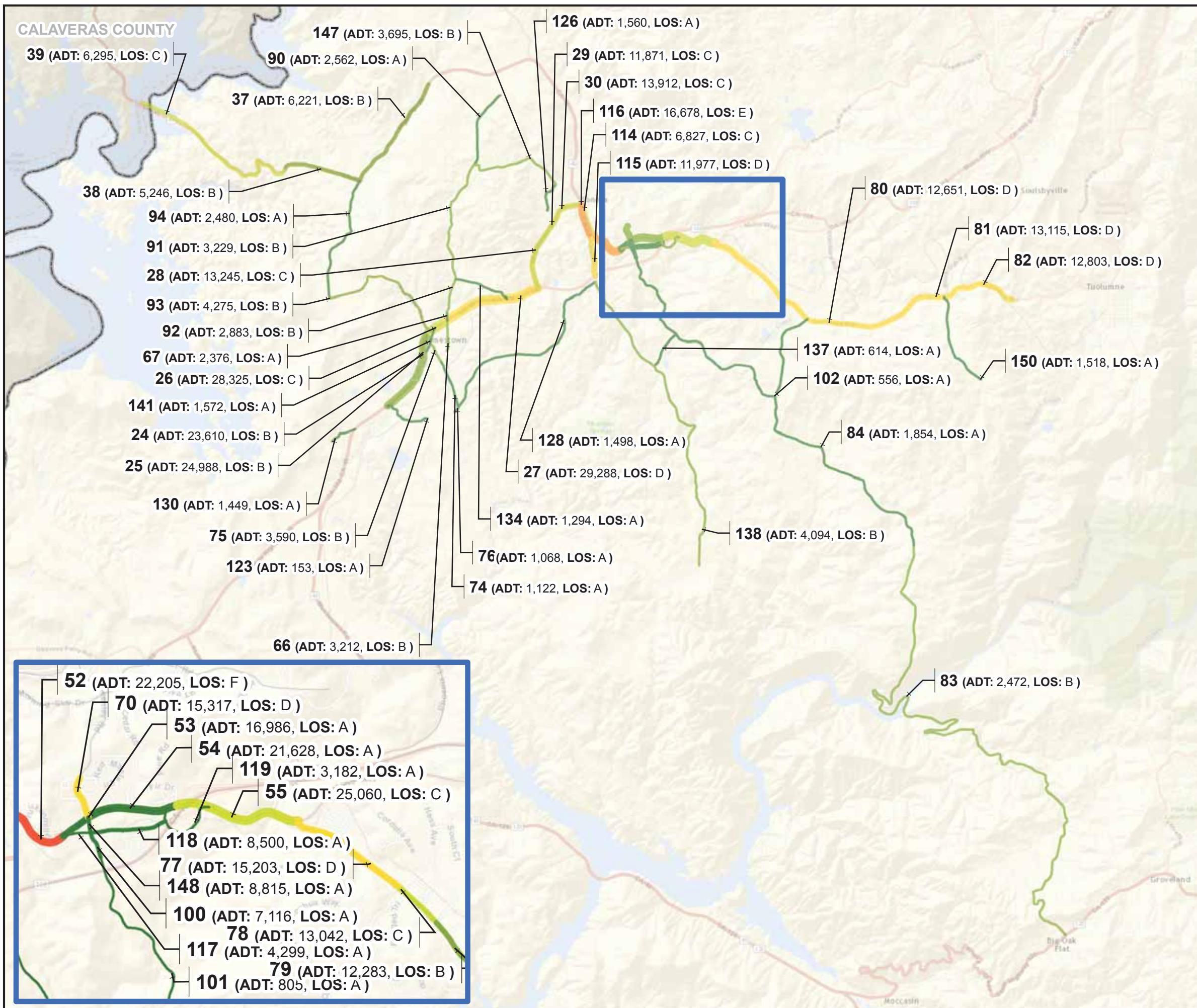
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



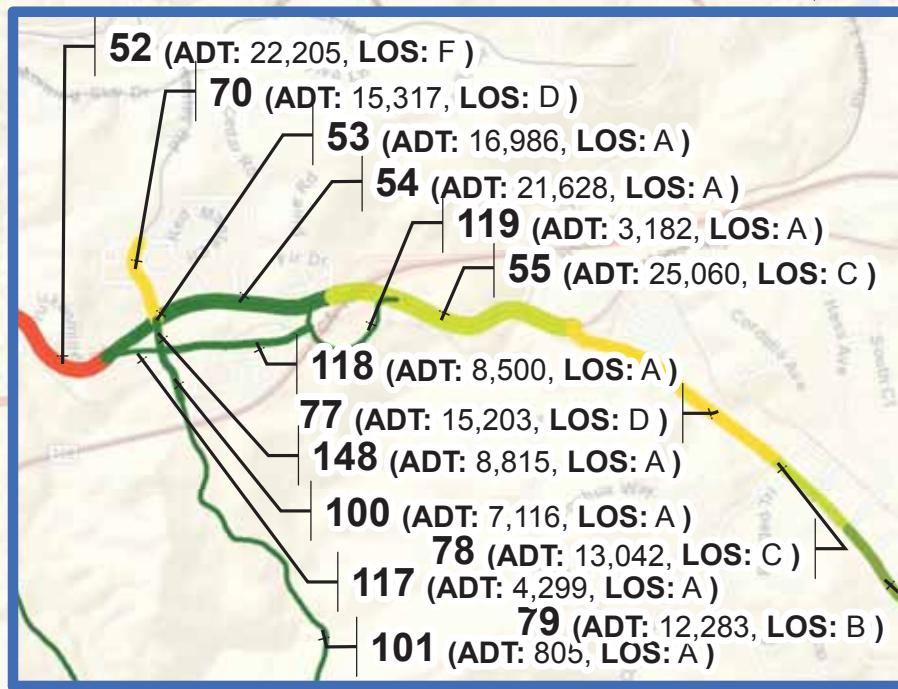
APPENDIX FIGURE 12-B: YEAR 2030
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
SOUTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range	
—	A
—	B
—	C
—	D
—	E
—	F

ADT Values - Proportional	
—	0 - 5,000
—	5,000 - 10,000
—	10,000 - 15,000
—	15,000 - 20,000
—	20,000 - 25,000
—	25,000+



WOOD RODGERS

APPENDIX FIGURE 12-C: YEAR 2030
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
NORTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range

- A
- B
- C
- D
- E
- F

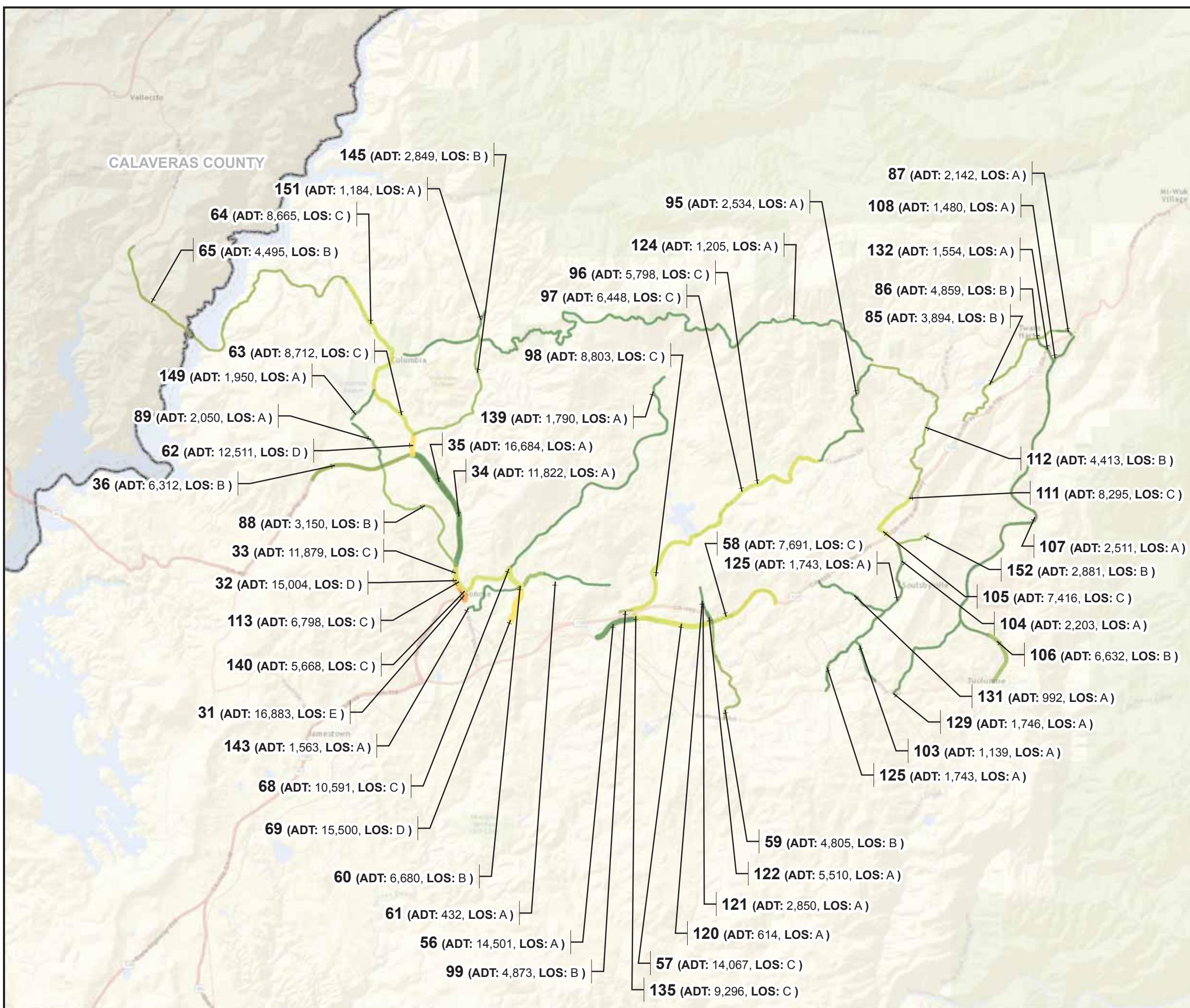
ADT Values - Proportional

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- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 12-D: YEAR 2030
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
GROVELAND AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 6,250 12,500
Feet

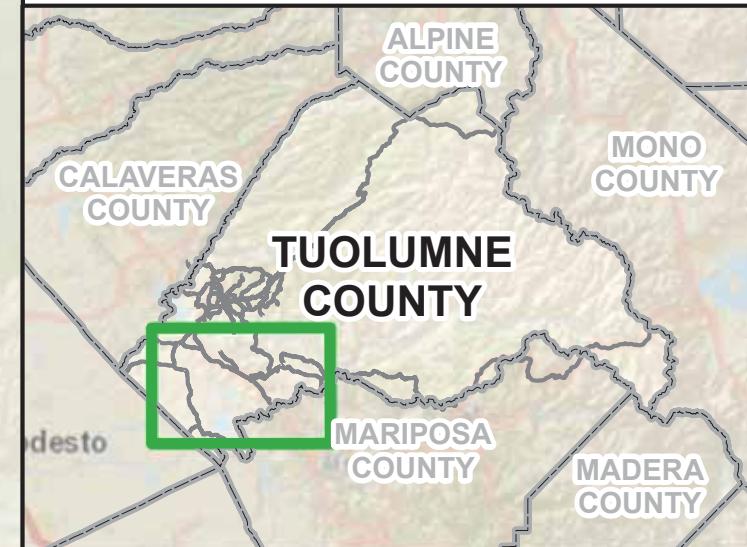
Level of Service - Color Range

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- C
- D
- E
- F

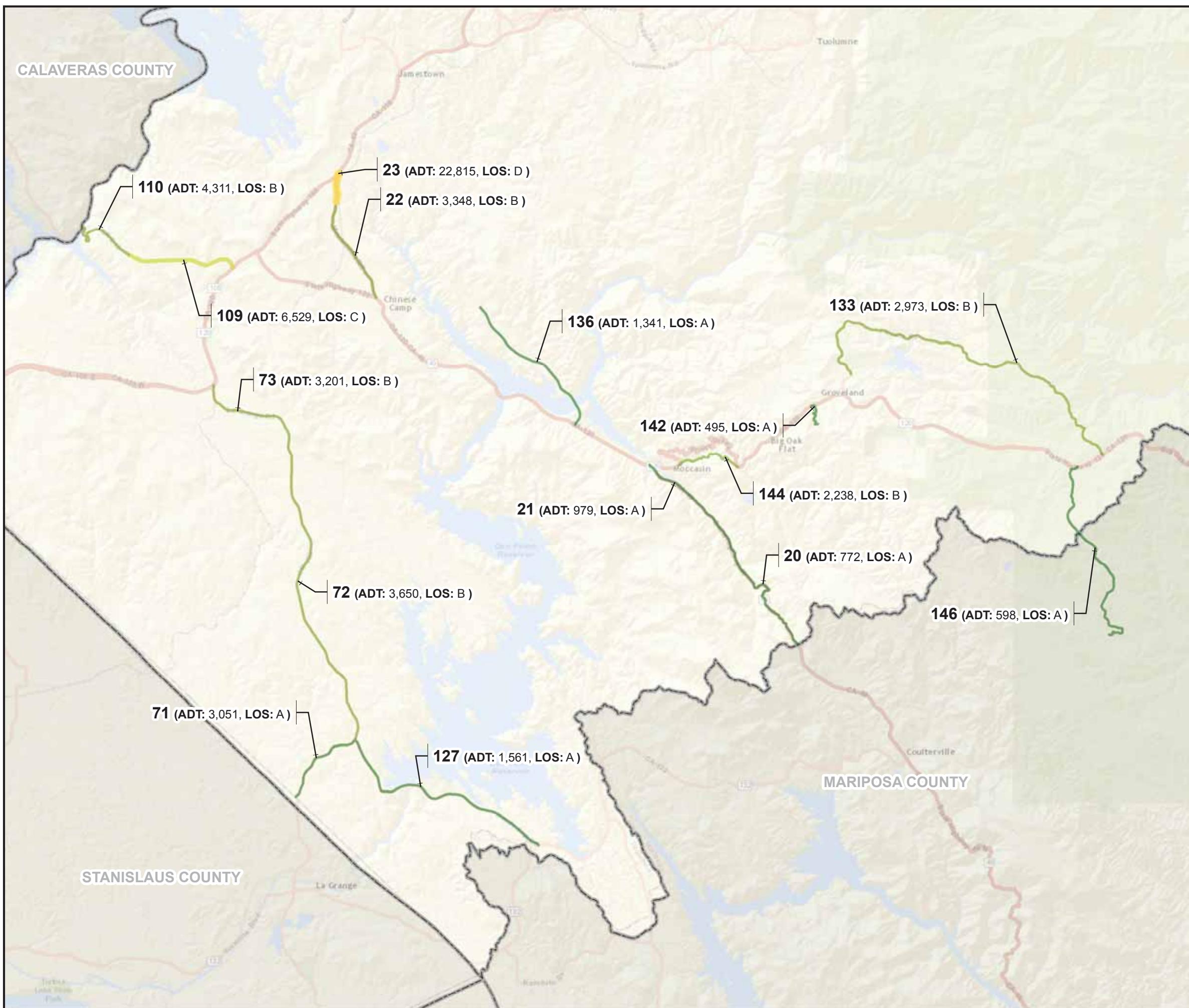
ADT Values - Proportional

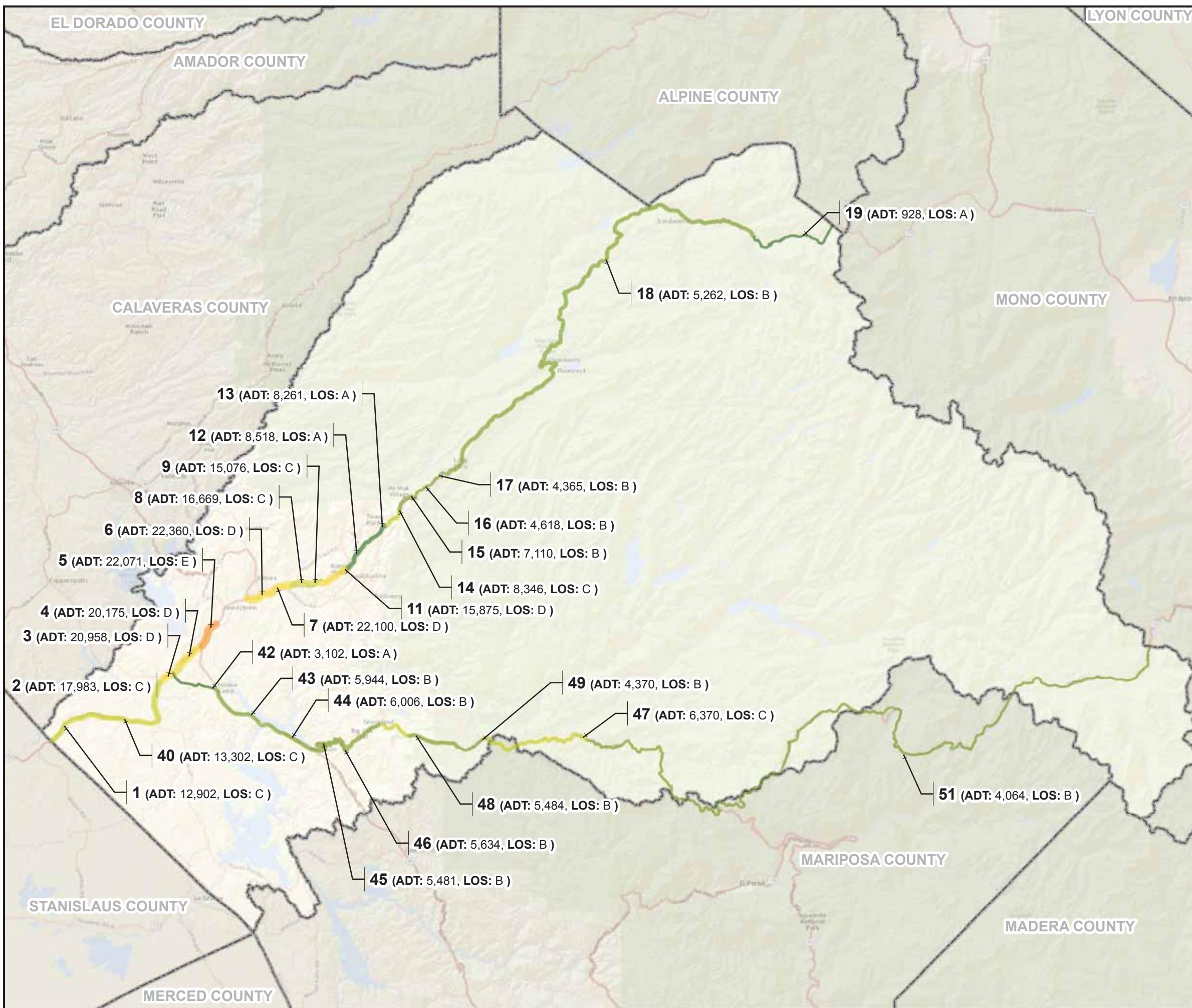
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP

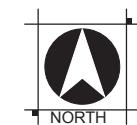


WOOD RODGERS





APPENDIX FIGURE 13-A: YEAR 2030
DEFICIENCIES
PUBLIC SERVICES PROPOSED
SR 108 AND SR 120
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 17,500 35,000
Feet

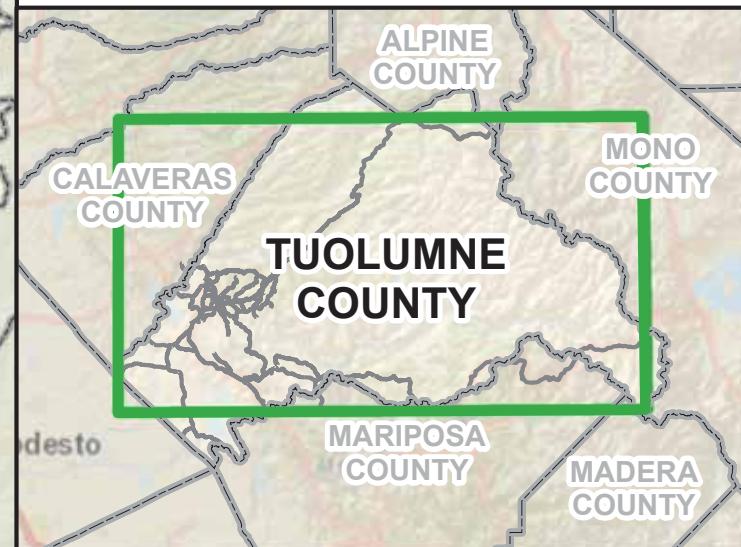
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP

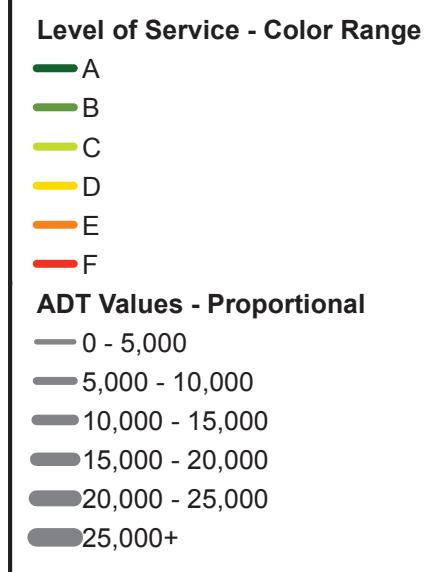


WOOD RODGERS

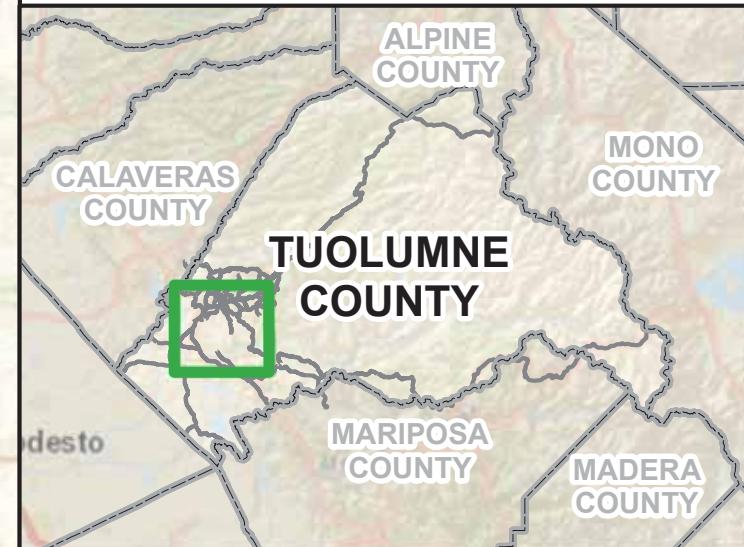
APPENDIX FIGURE 13-B: YEAR 2030
DEFICIENCIES
PUBLIC SERVICES PROPOSED
SOUTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



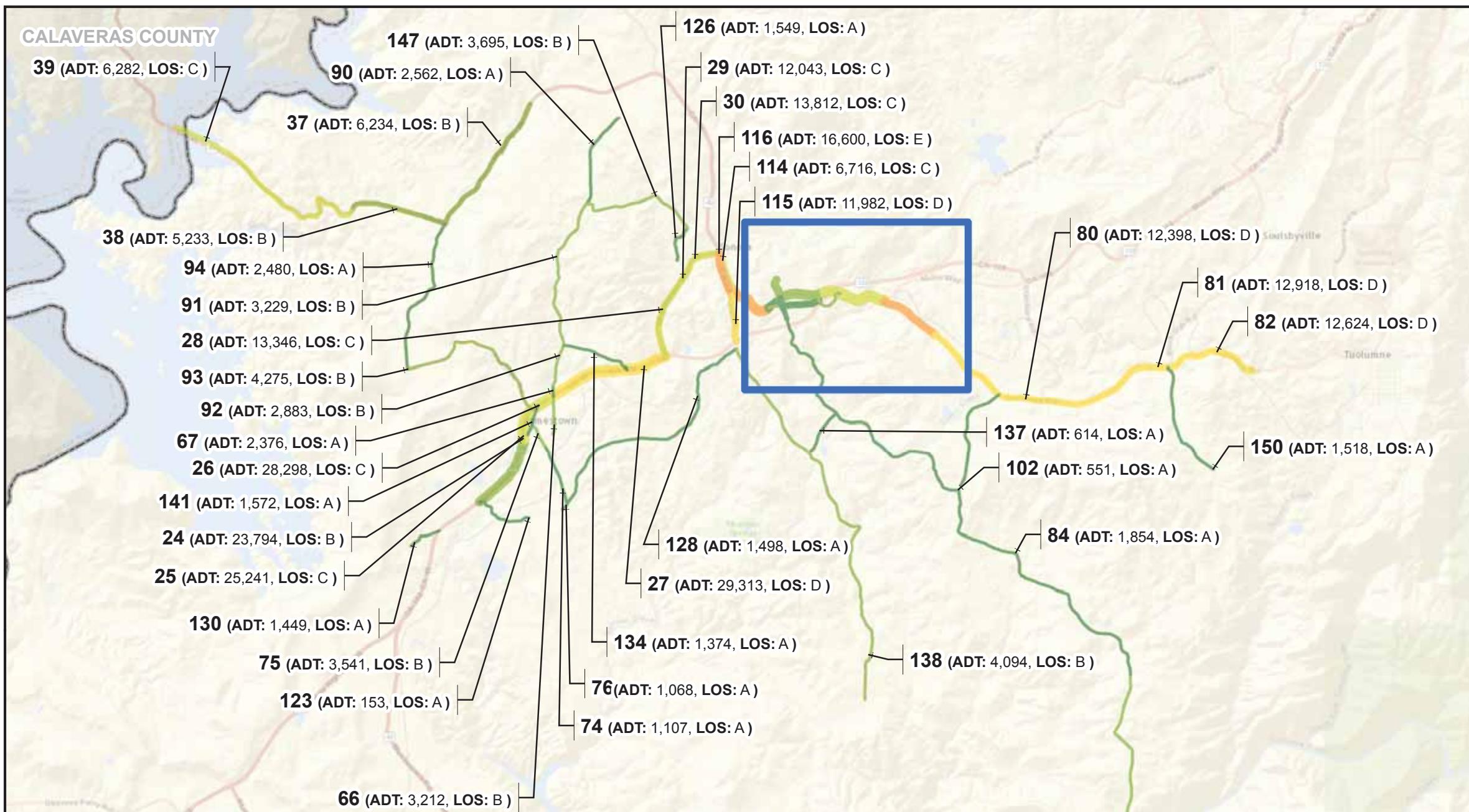
0 3,750 7,500
Feet



LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 13-C: YEAR 2030
DEFICIENCIES
PUBLIC SERVICES PROPOSED
NORTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range

- A
- B
- C
- D
- E
- F

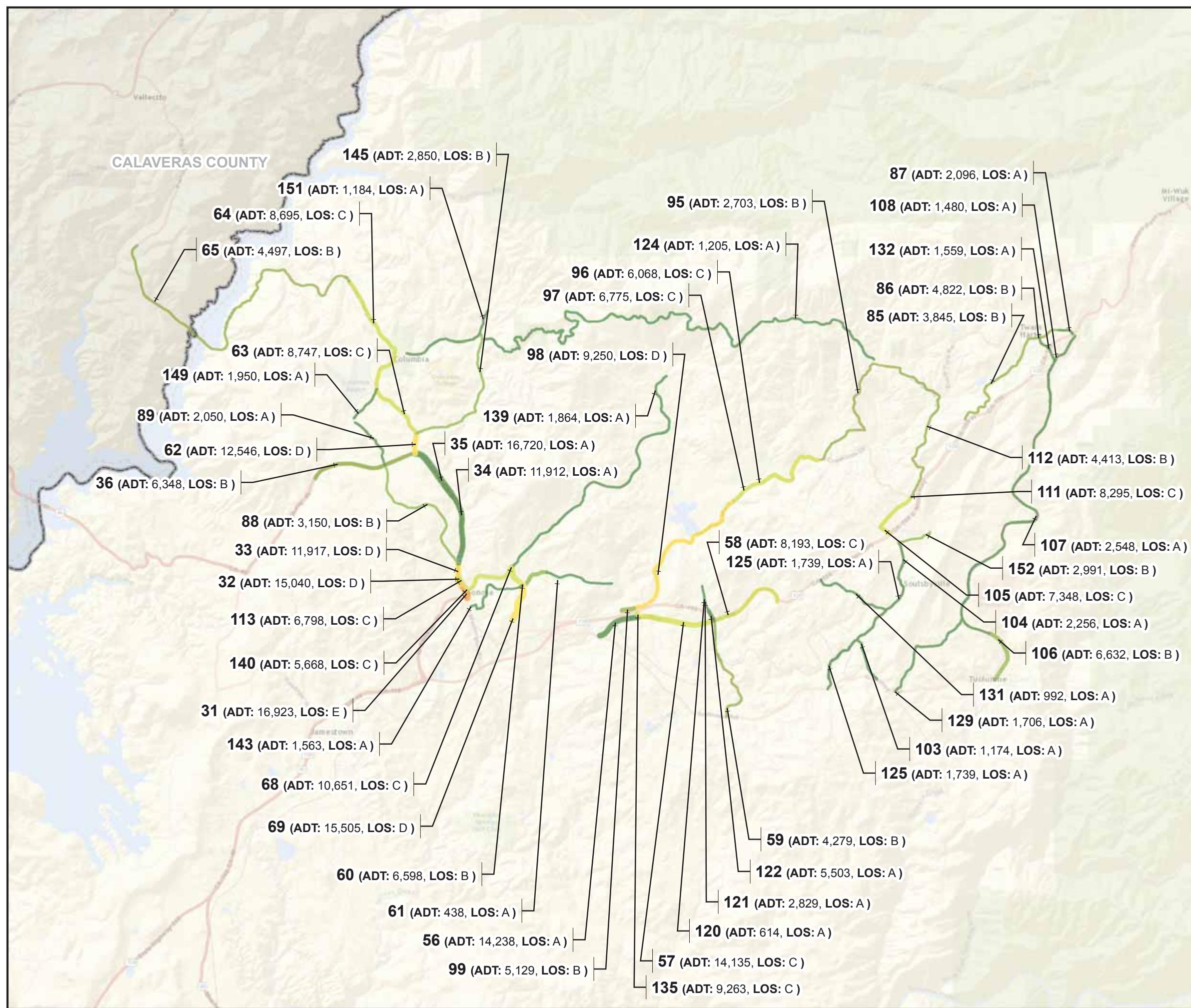
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 13-D: YEAR 2030
DEFICIENCIES
PUBLIC SERVICES PROPOSED
GROVELAND AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 6,250 12,500
Feet

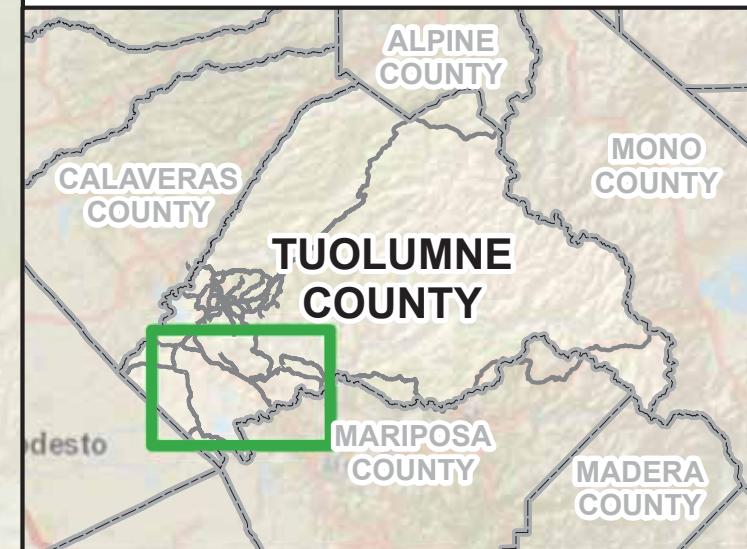
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

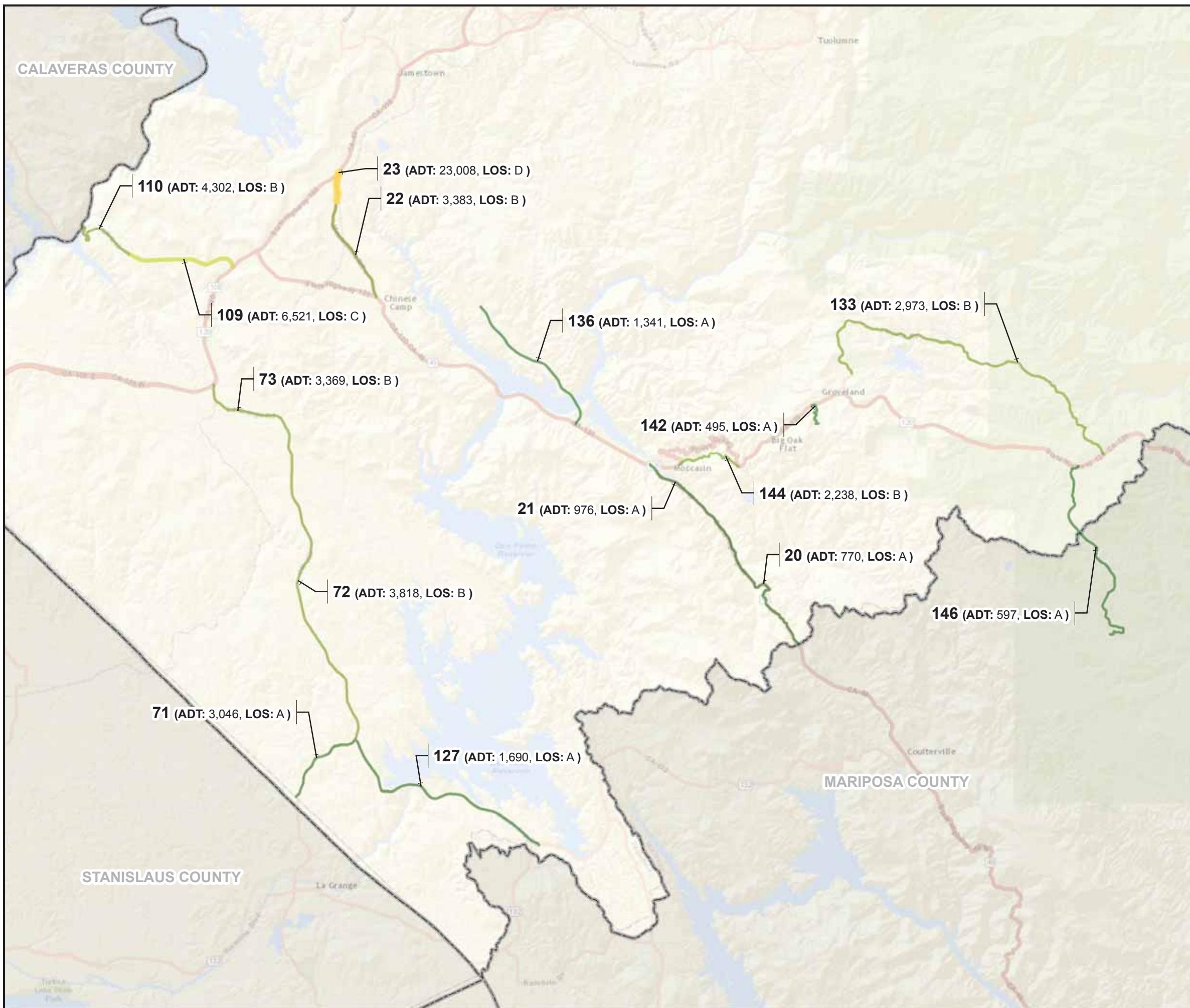
ADT Values - Proportional

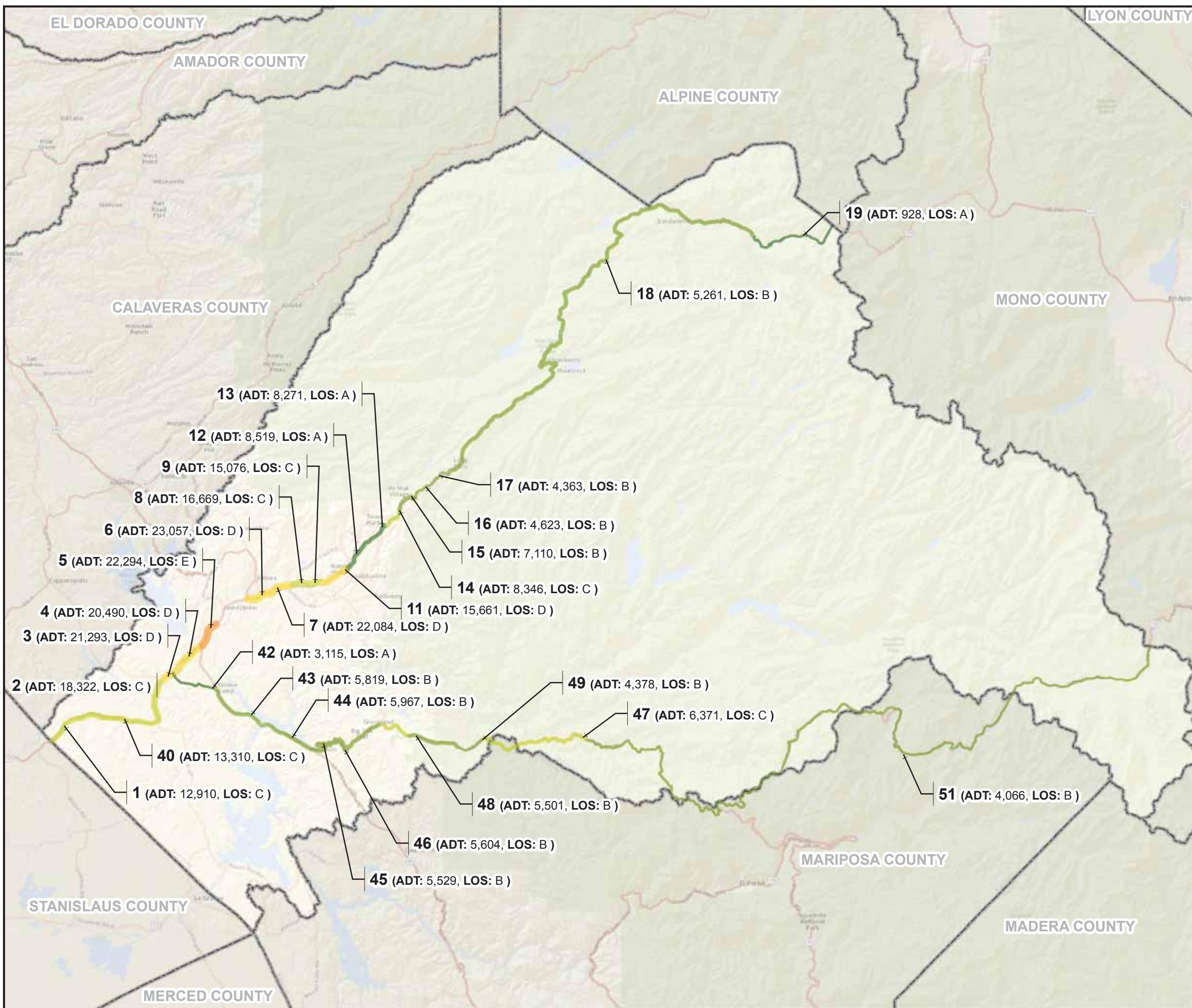
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS





APPENDIX FIGURE 14-A: YEAR 2030
DEFICIENCIES
RECENT TRENDS EXISTING
SR 108 AND SR 120
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 17,500 35,000
Feet

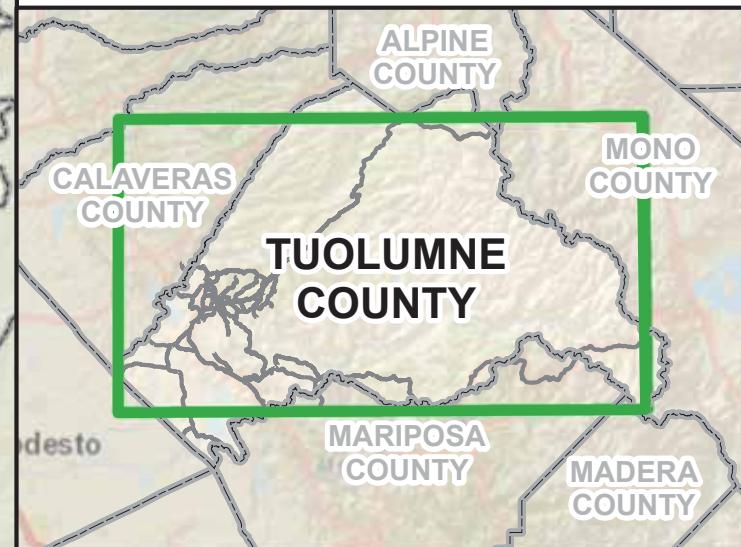
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP

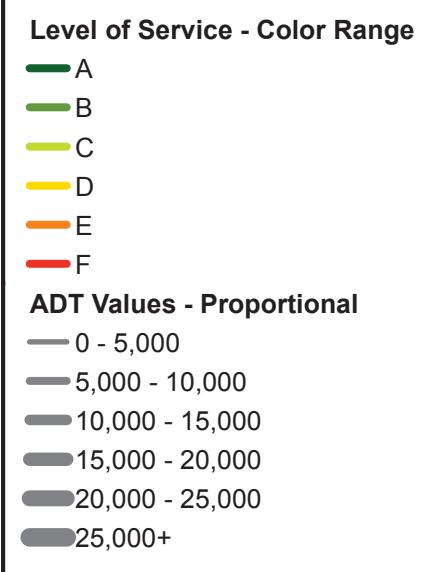


WOOD RODGERS

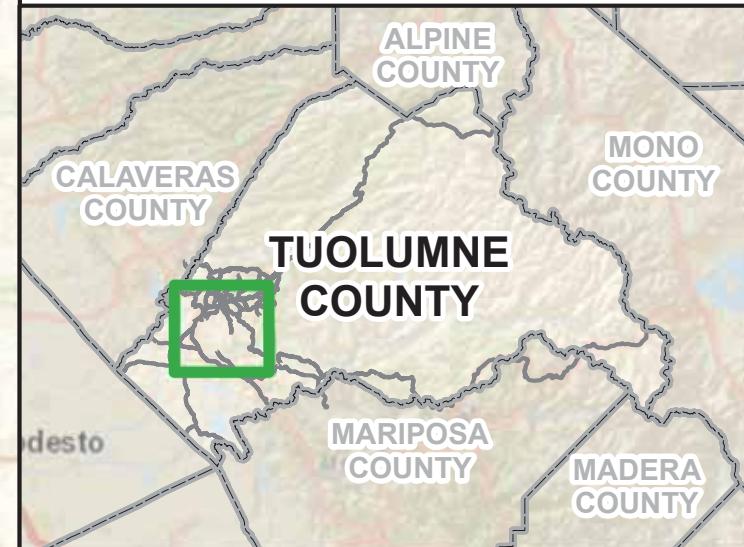
APPENDIX FIGURE 14-B: YEAR 2030
 DEFICIENCIES
 RECENT TRENDS EXISTING
 SOUTHERN SONORA AREA
 TUOLUMNE COUNTY EIR TRAFFIC STUDY
 TUOLUMNE COUNTY, CA
 AUGUST 2015



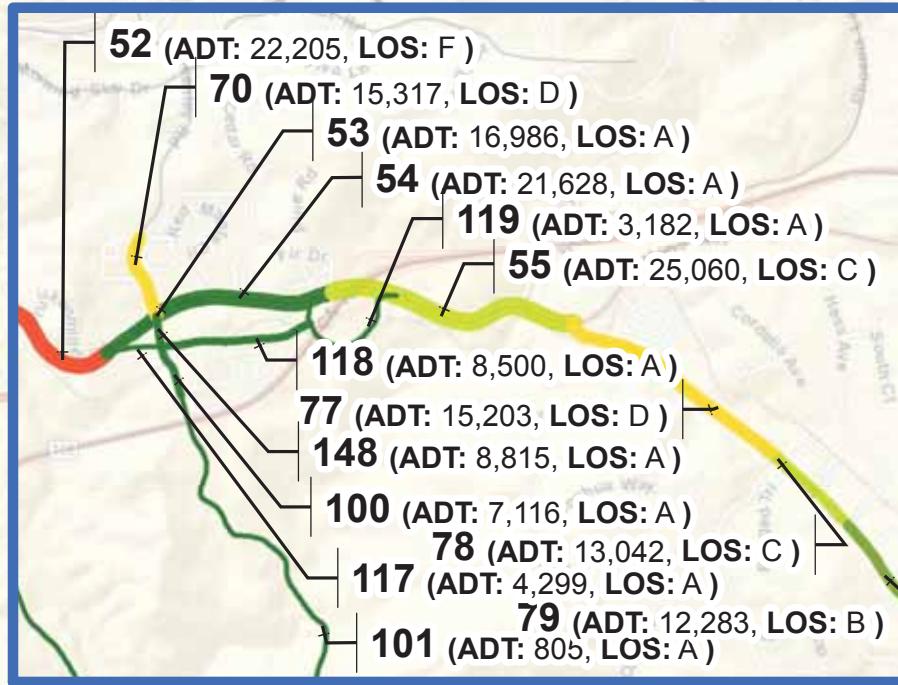
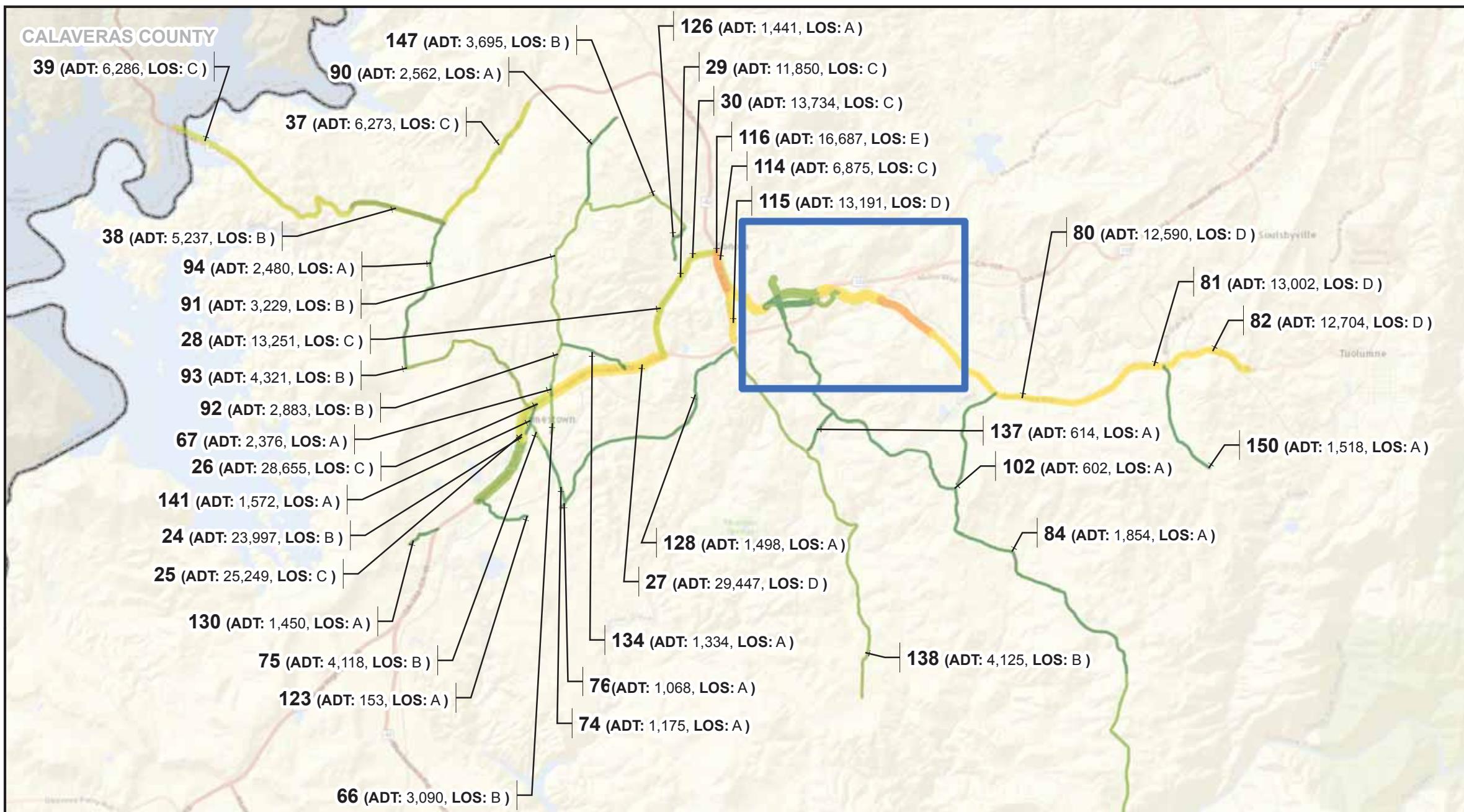
0 3,750 7,500
Feet



LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 14-C: YEAR 2030
DEFICIENCIES
RECENT TRENDS EXISTING
NORTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range

- A
- B
- C
- D
- E
- F

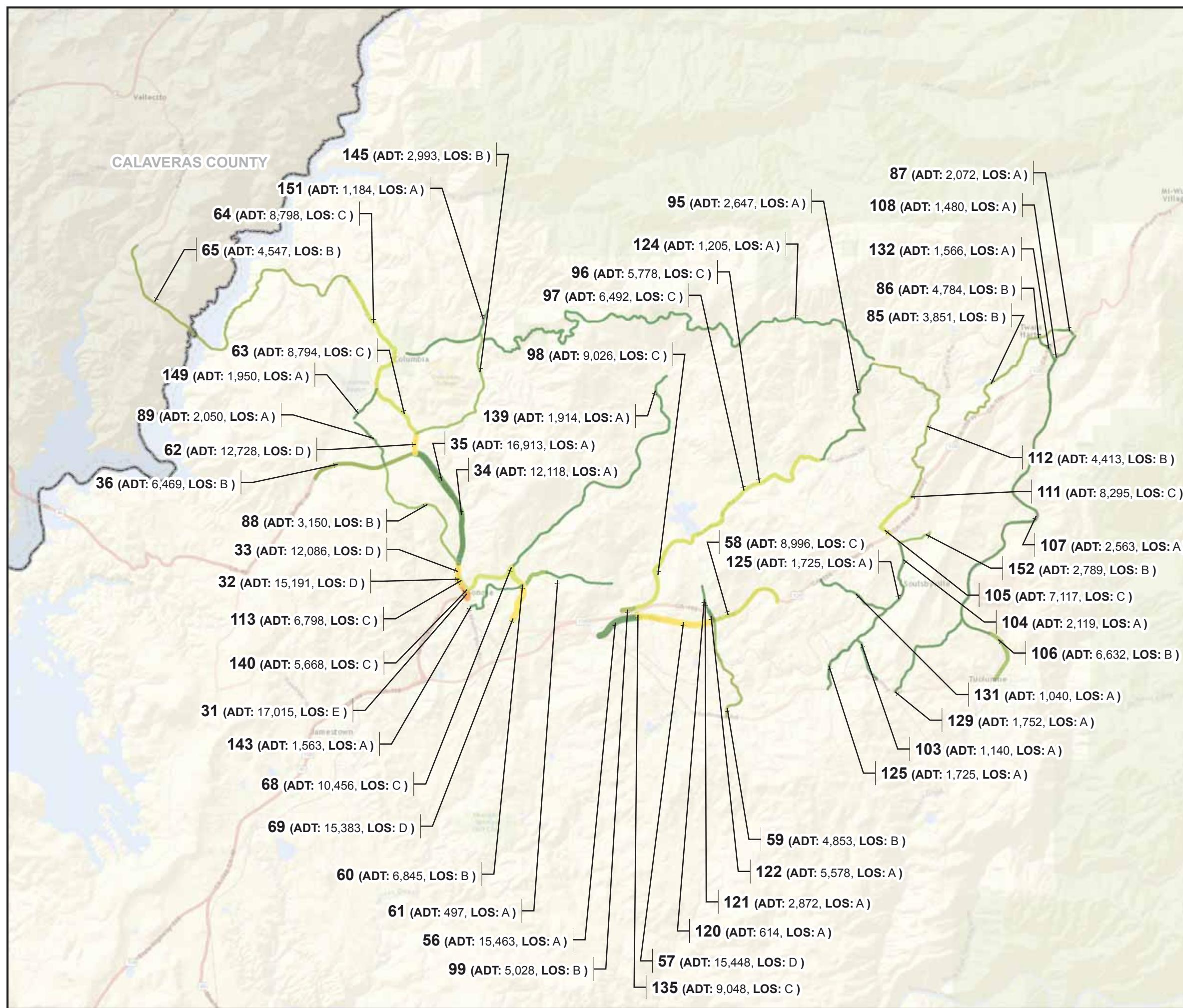
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 14-D: YEAR 2030
 DEFICIENCIES
 RECENT TRENDS EXISTING
 GROVELAND AREA
 TUOLUMNE COUNTY EIR TRAFFIC STUDY
 TUOLUMNE COUNTY, CA
 AUGUST 2015



0 6,250 12,500
Feet

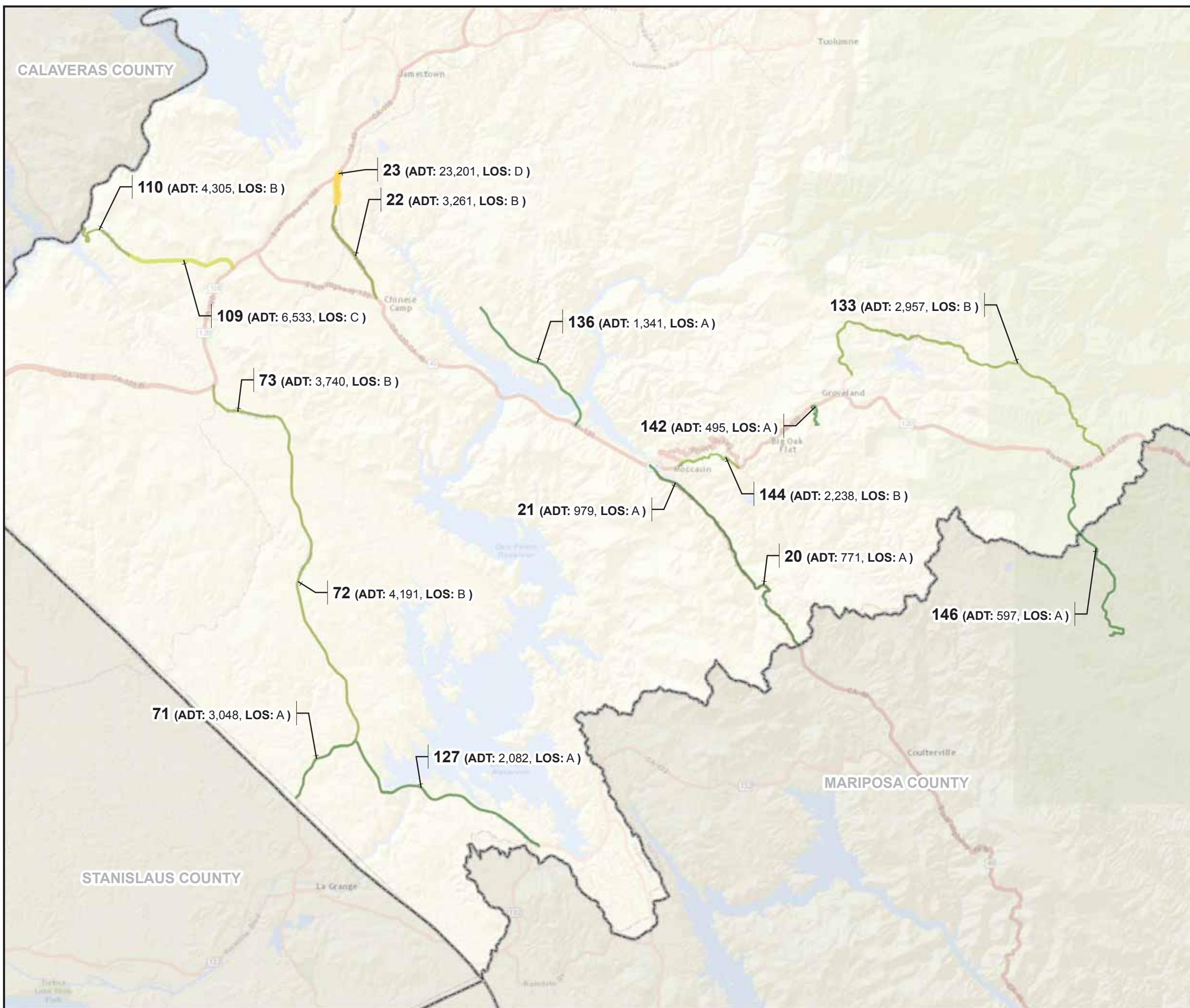
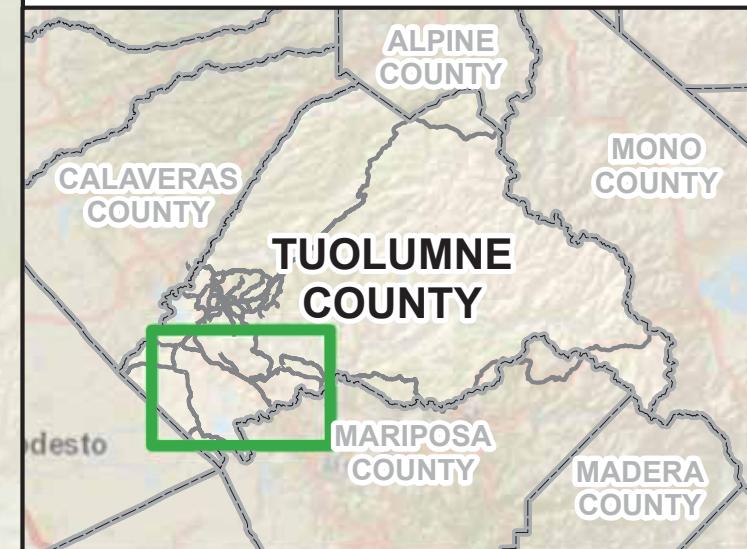
Level of Service - Color Range

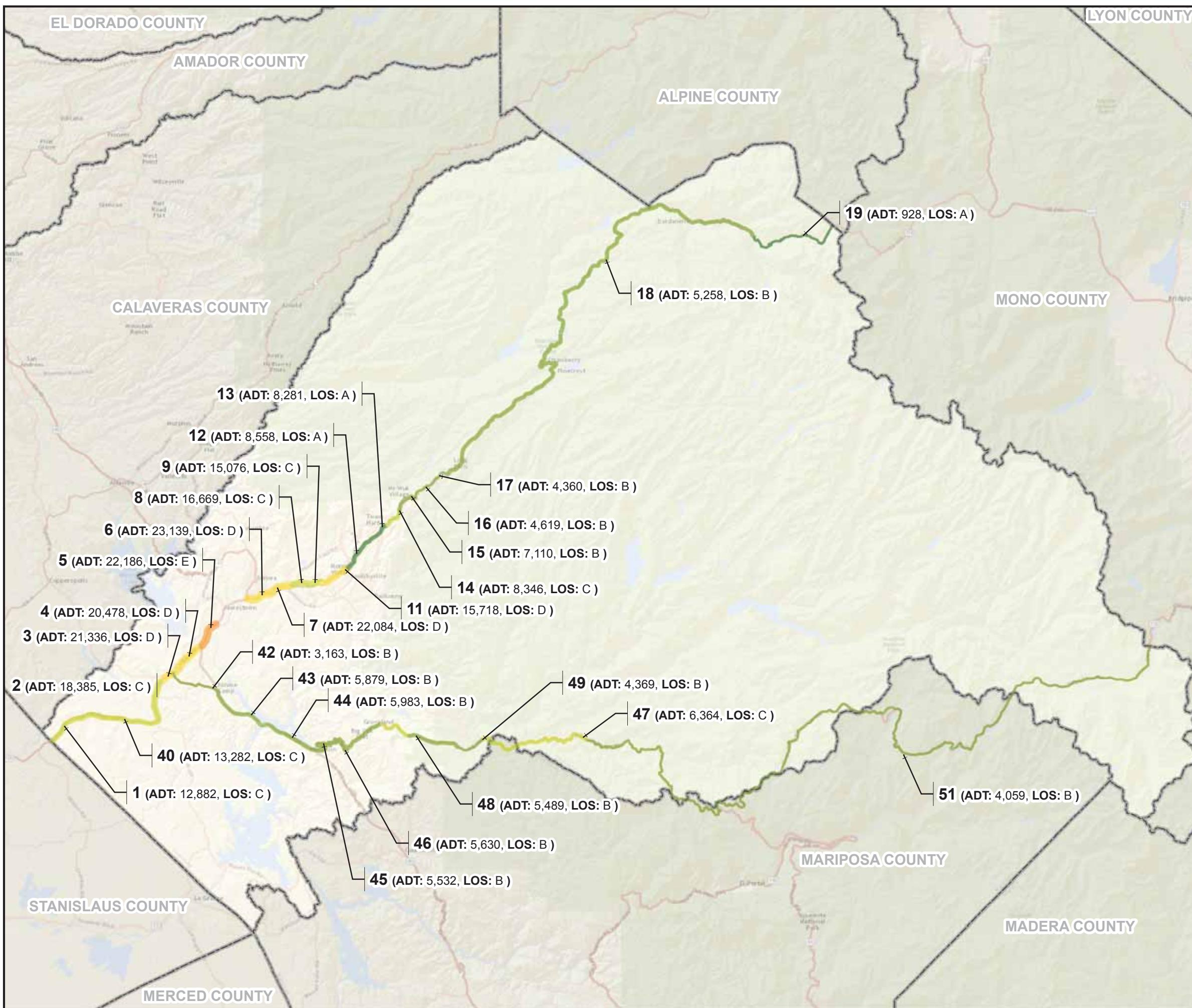
- A
- B
- C
- D
- E
- F

ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP





APPENDIX FIGURE 15-A: YEAR 2030
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
SR 108 AND SR 120
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 17,500 35,000
Feet

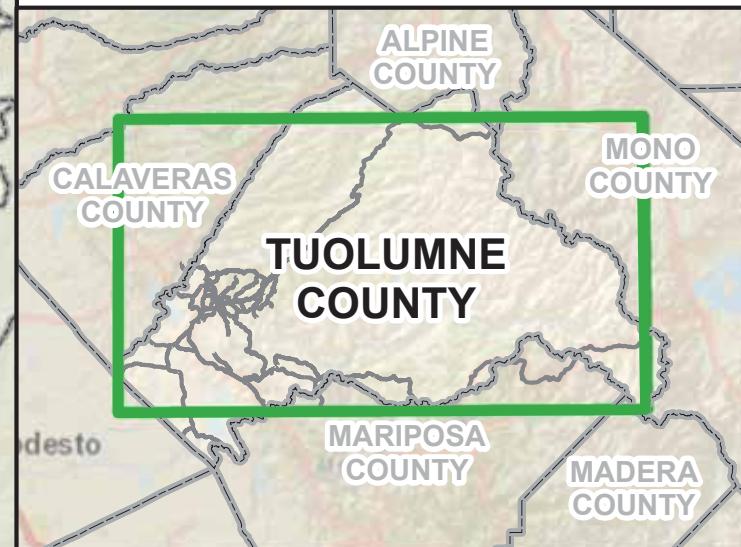
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

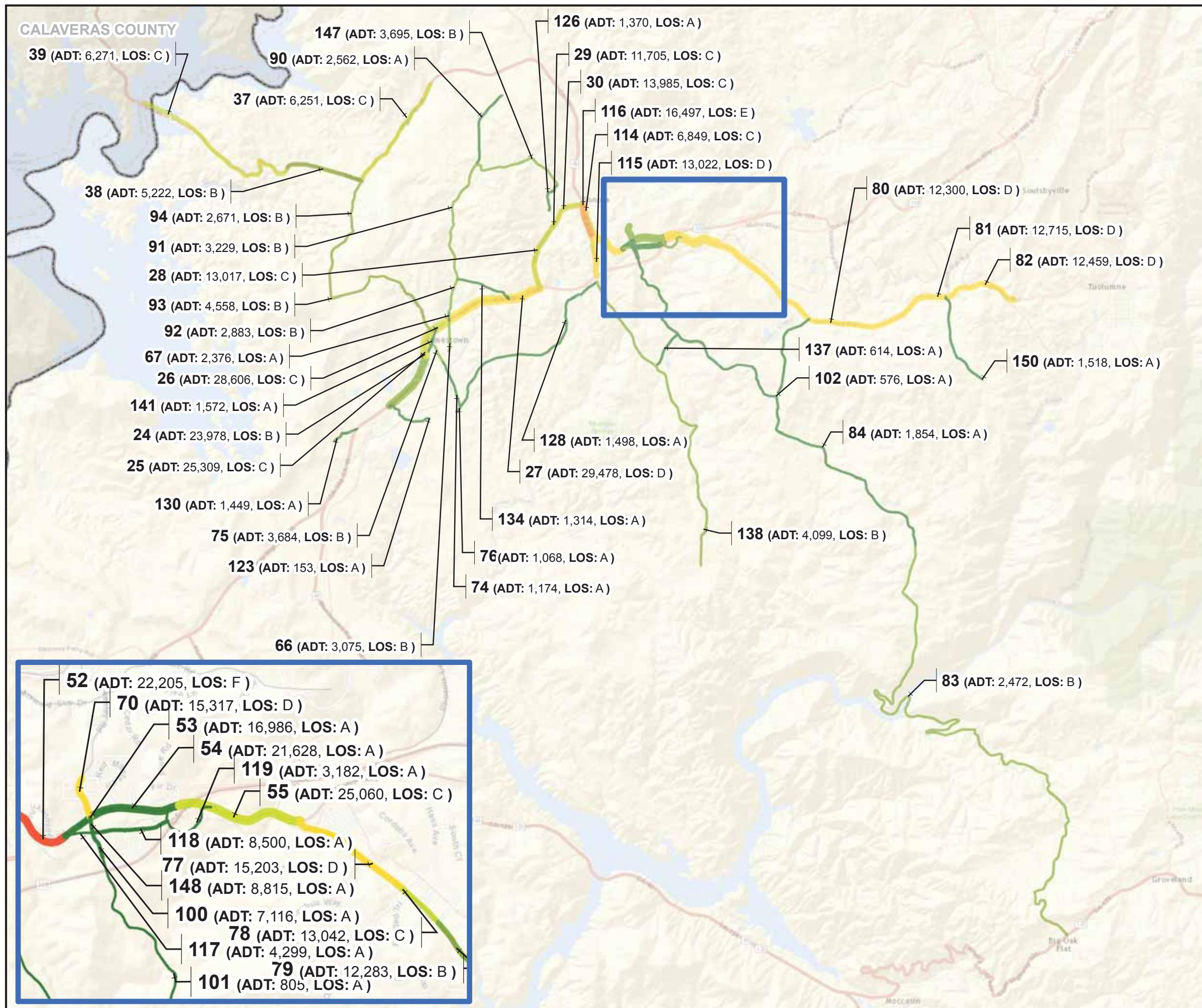
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 15-B: YEAR 2030
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
SOUTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

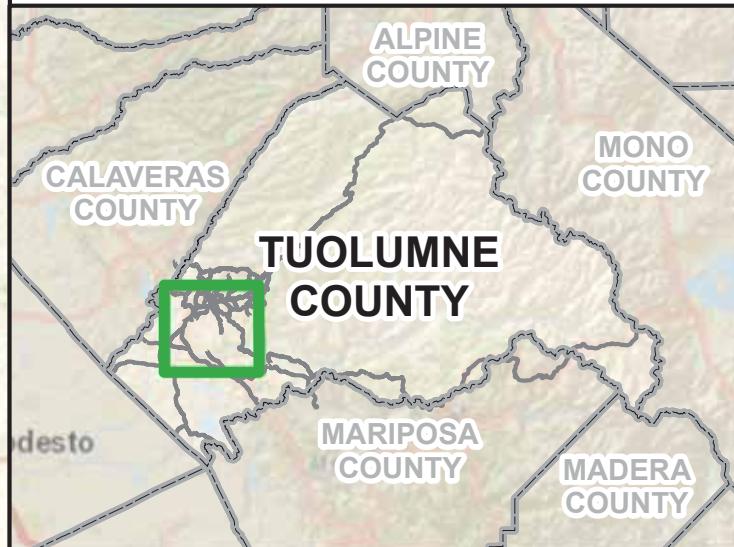
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



APPENDIX FIGURE 15-C: YEAR 2030
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
NORTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range

- A
- B
- C
- D
- E
- F

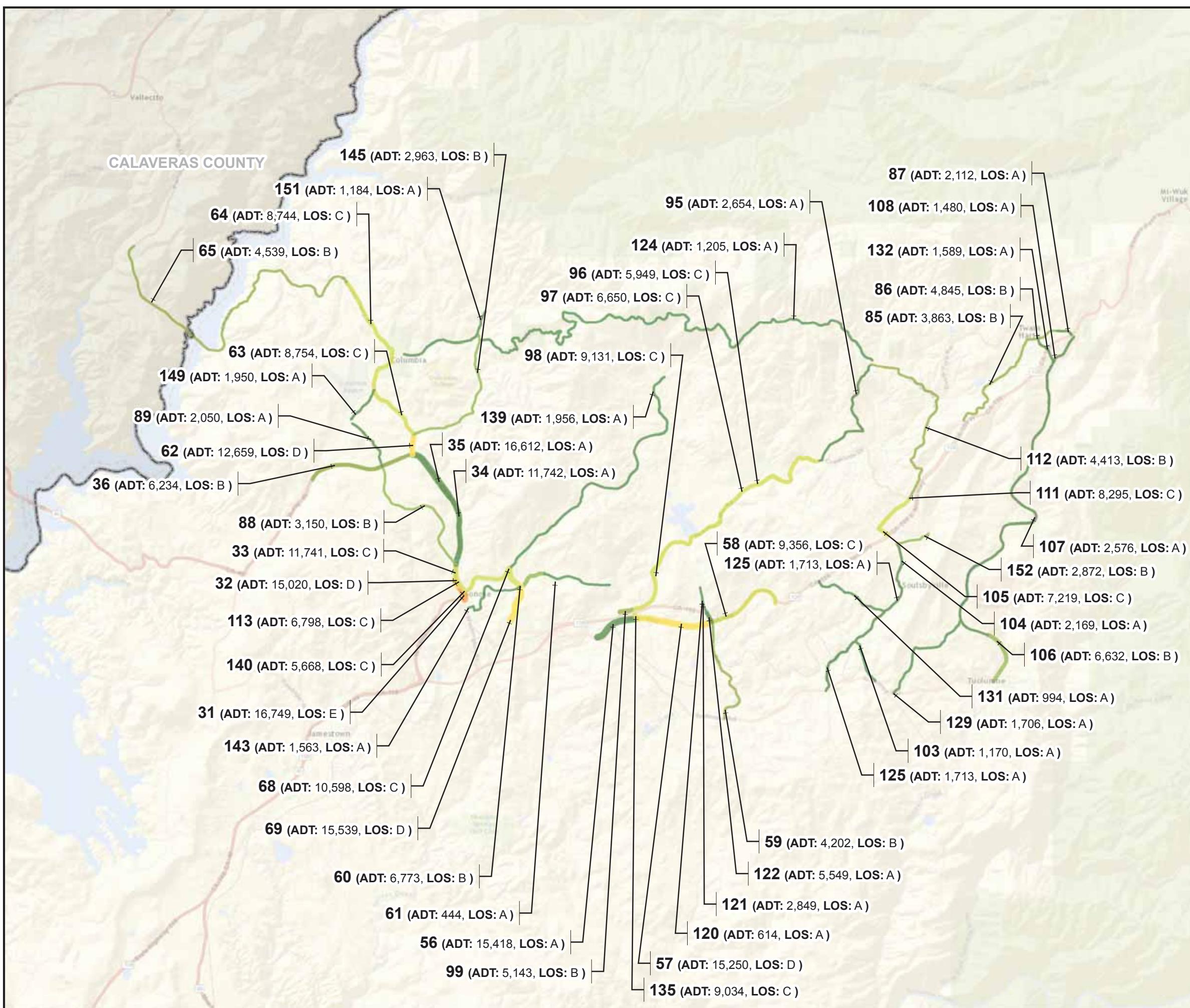
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 15-D: YEAR 2030
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
GROVELAND AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 6,250 12,500
Feet

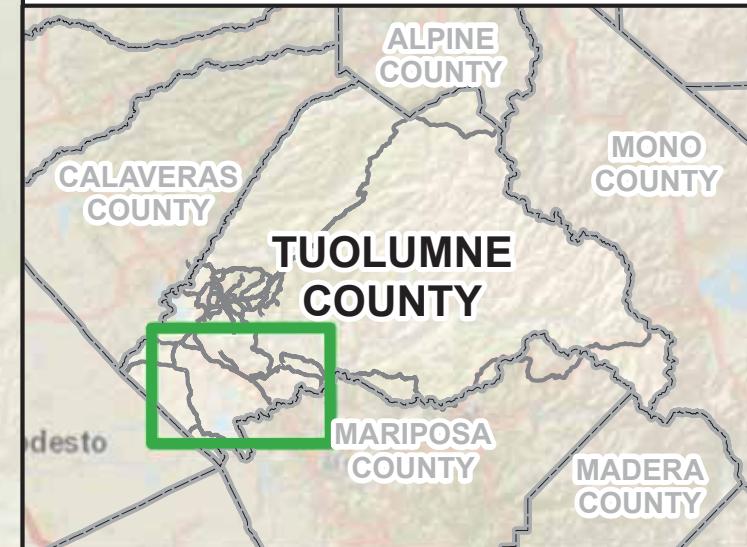
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

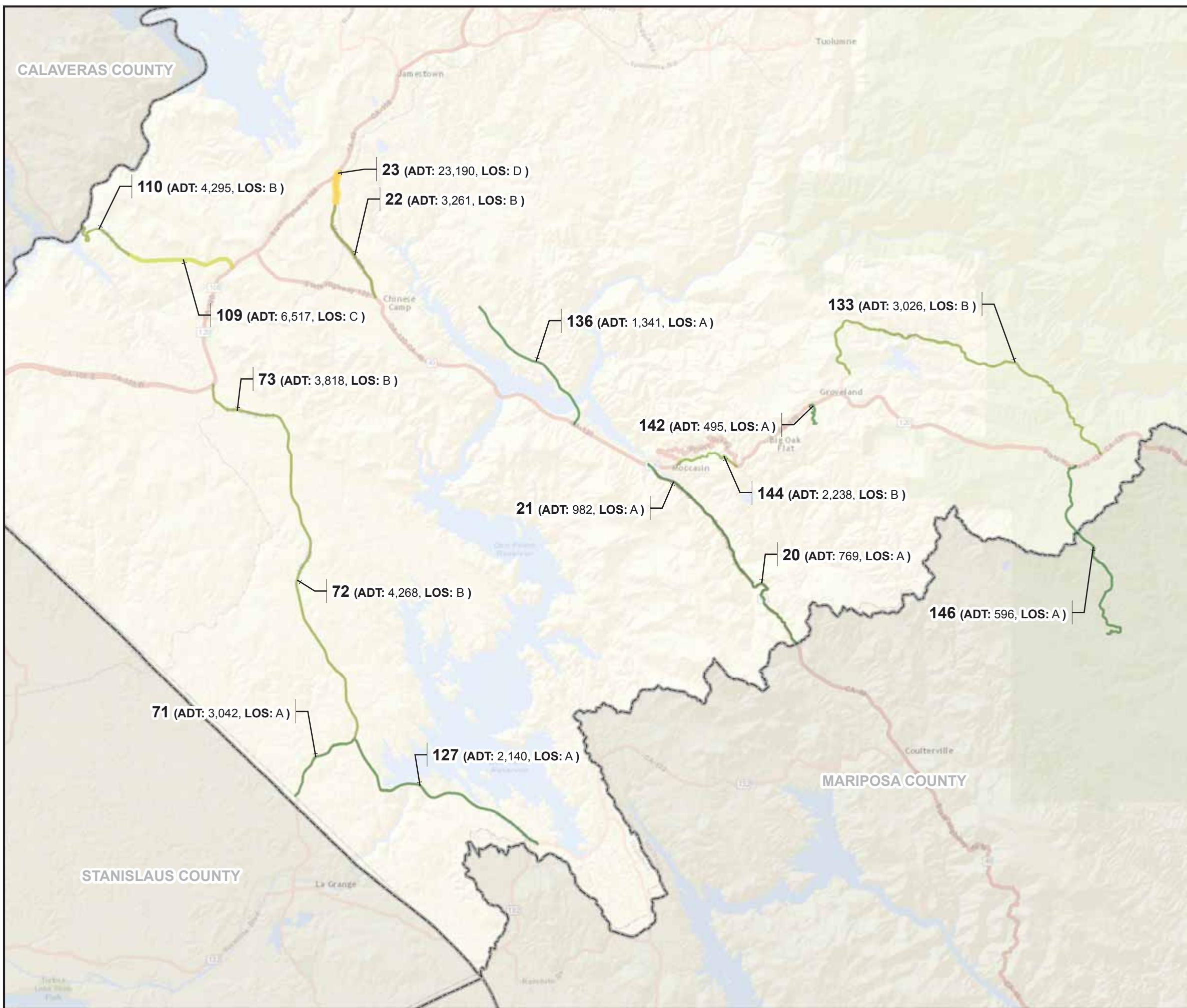
ADT Values - Proportional

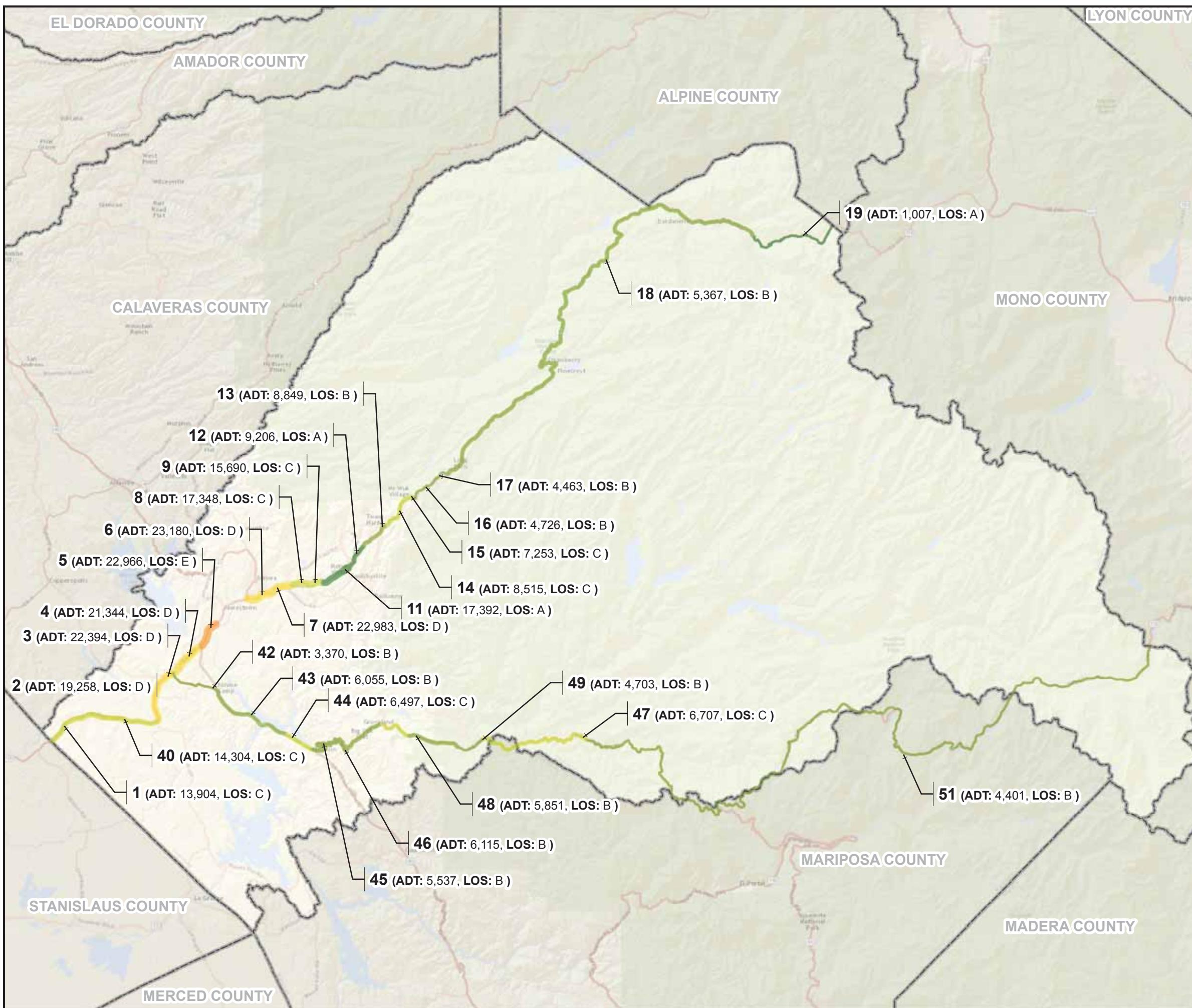
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS





APPENDIX FIGURE 16-A: YEAR 2040
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
SR 108 AND SR 120
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 17,500 35,000
Feet

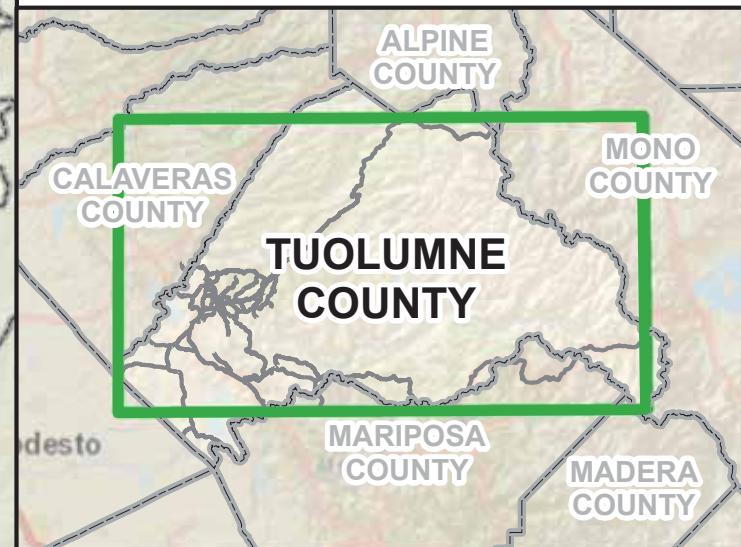
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

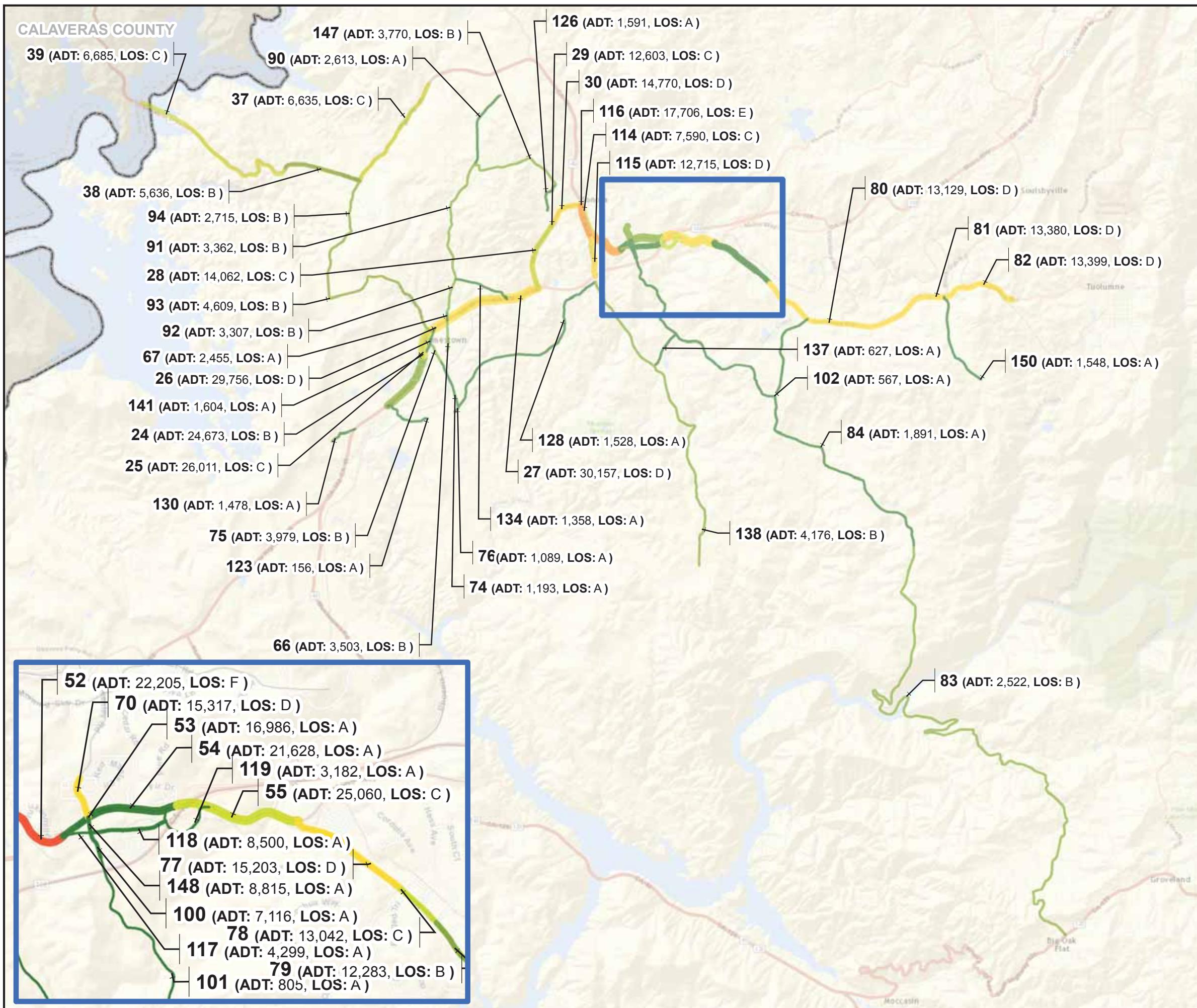
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



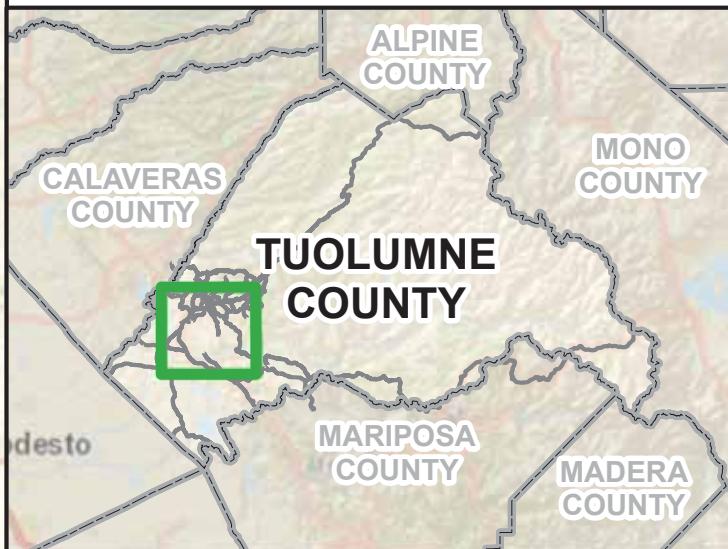
APPENDIX FIGURE 16-B: YEAR 2040
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
SOUTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range	
—	A
—	B
—	C
—	D
—	E
—	F
ADT Values - Proportional	
—	0 - 5,000
—	5,000 - 10,000
—	10,000 - 15,000
—	15,000 - 20,000
—	20,000 - 25,000
—	25,000+

LOCATION MAP



WOOD RODGERS

APPENDIX FIGURE 16-C: YEAR 2040
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
NORTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range

- A
- B
- C
- D
- E
- F

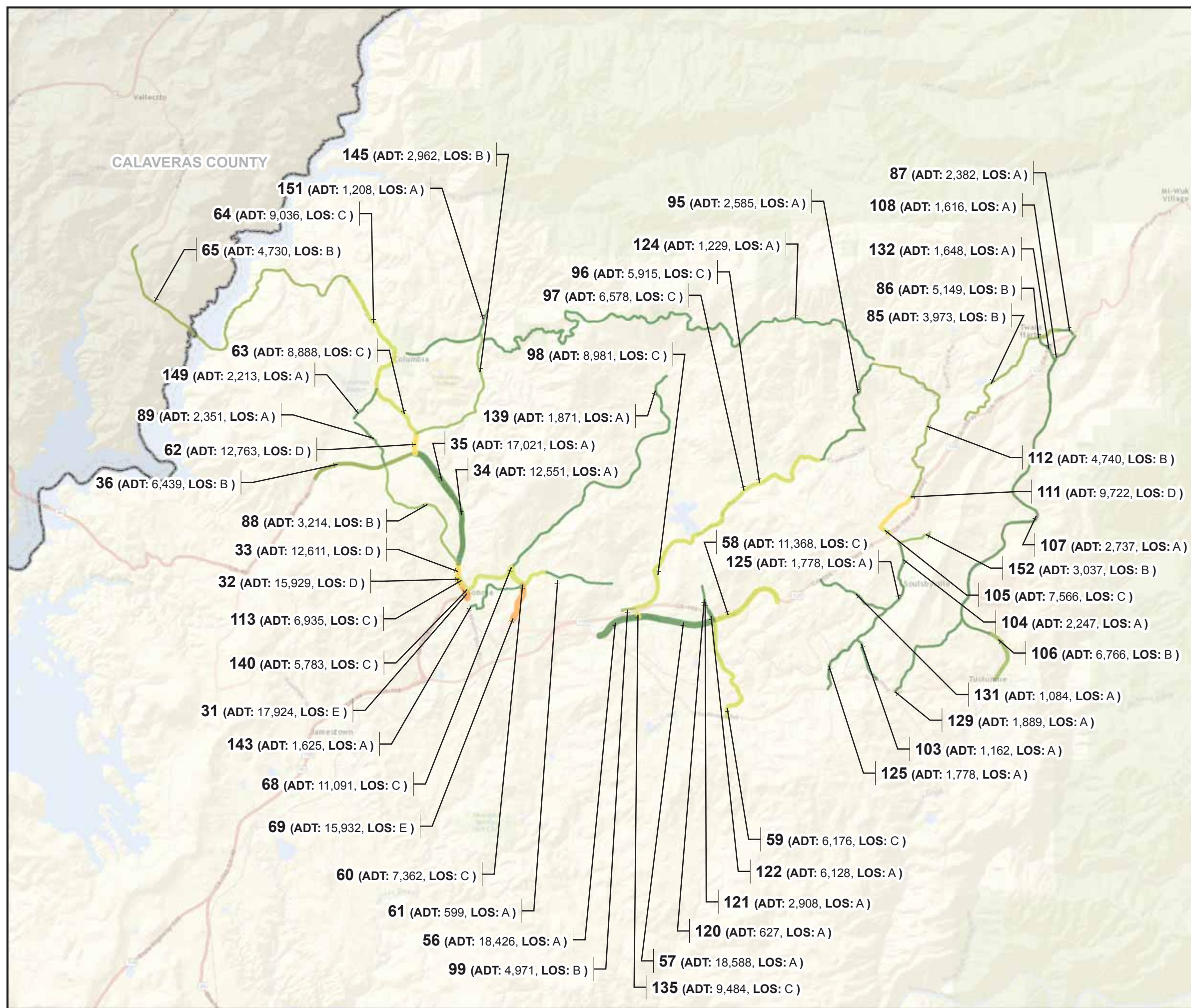
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 16-D: YEAR 2040
DEFICIENCIES
DISTINCTIVE COMMUNITIES PROPOSED
GROVELAND AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 6,250 12,500
Feet

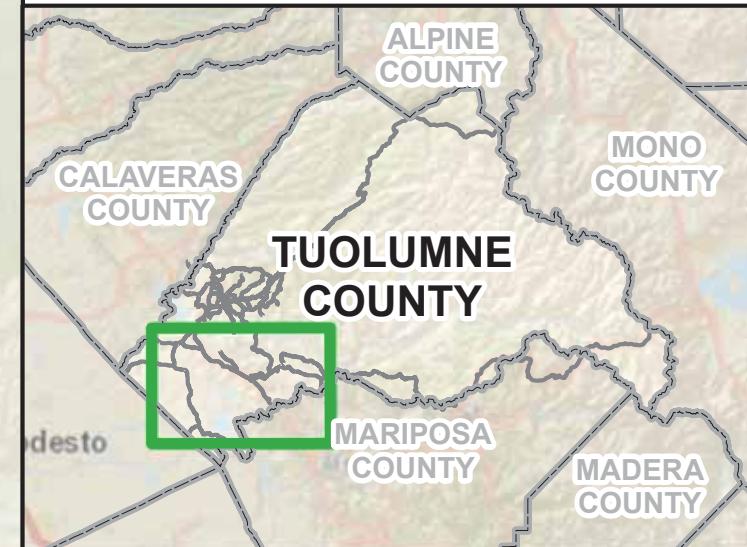
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

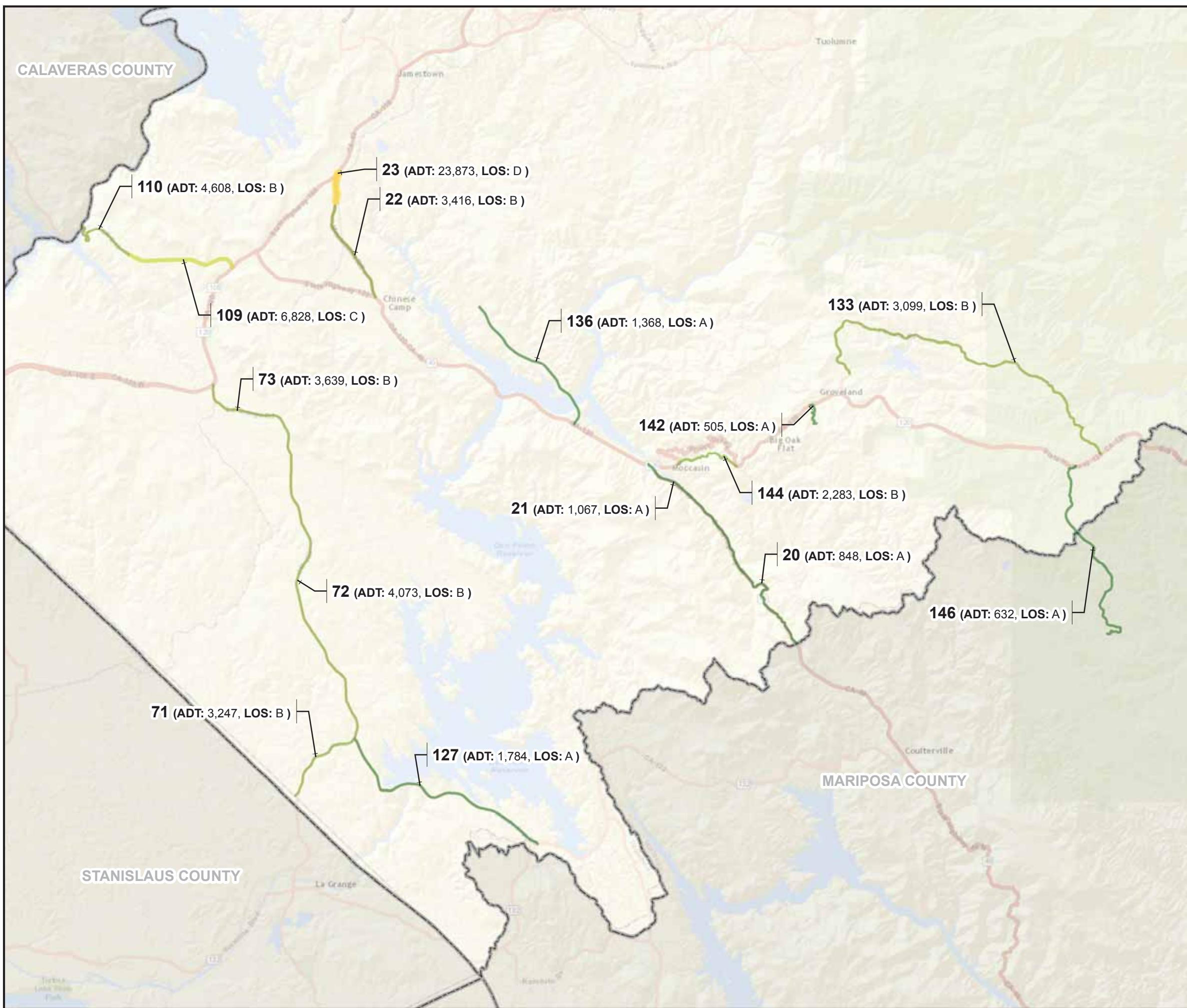
ADT Values - Proportional

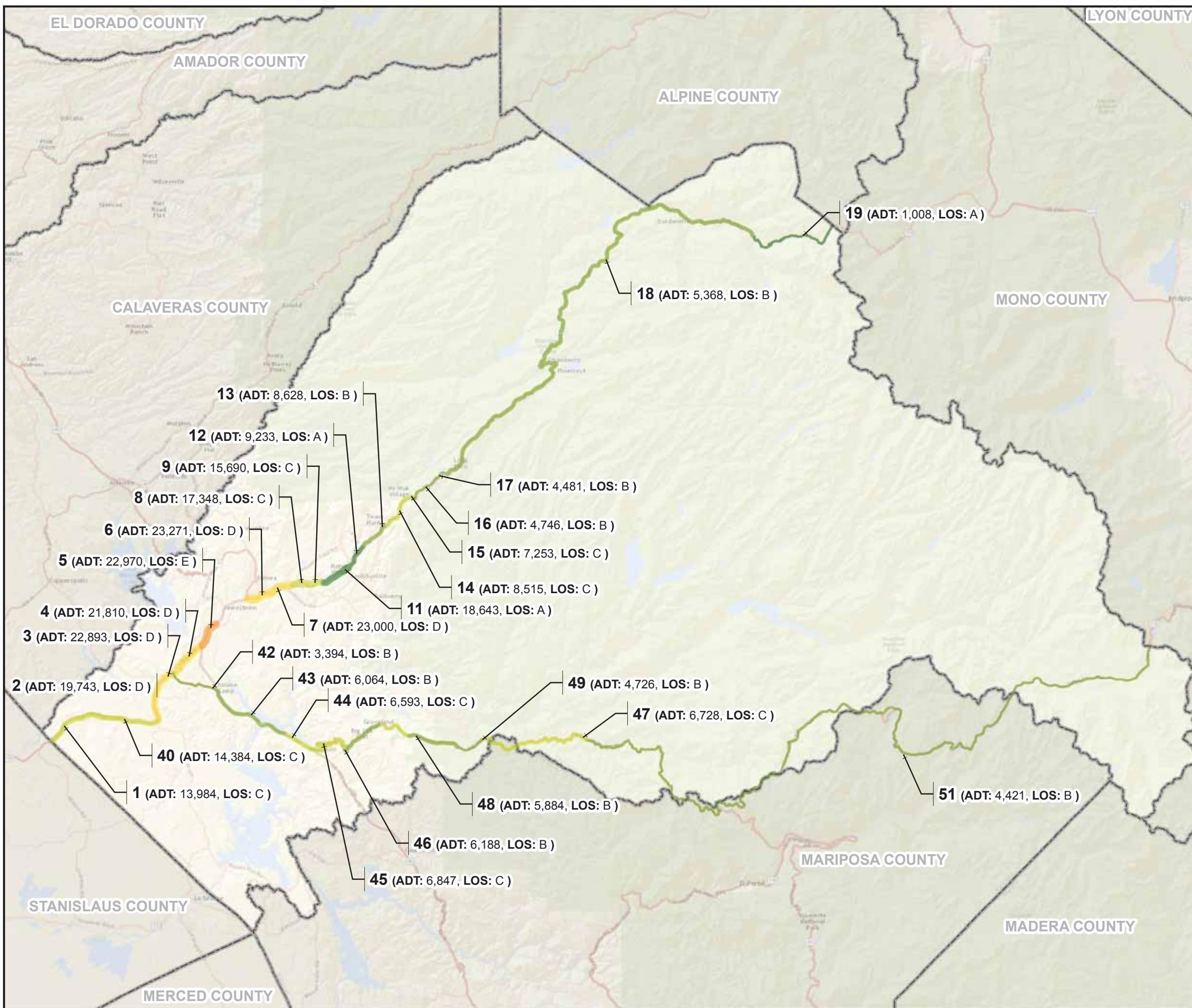
- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS





APPENDIX FIGURE 17-A: YEAR 2040
DEFICIENCIES
PUBLIC SERVICES PROPOSED
SR 108 AND SR 120
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015

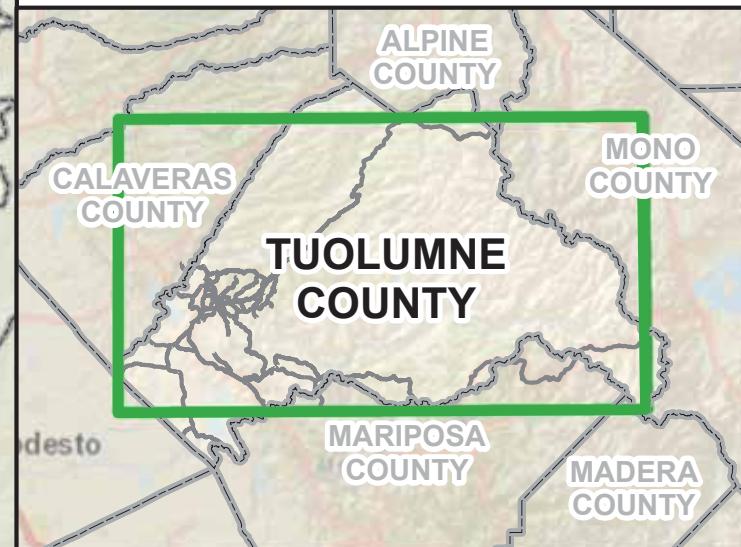


0 17,500 35,000
Feet

Level of Service - Color Range	
A	Dark Green
B	Medium Green
C	Light Green
D	Yellow
E	Orange
F	Red

ADT Values - Proportional	
0 - 5,000	Lightest Gray
5,000 - 10,000	Very Light Gray
10,000 - 15,000	Light Gray
15,000 - 20,000	Medium Gray
20,000 - 25,000	Dark Gray
25,000+	Black

LOCATION MAP

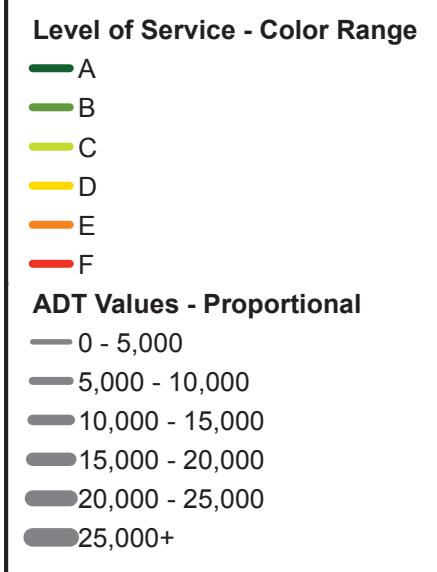


WOOD RODGERS

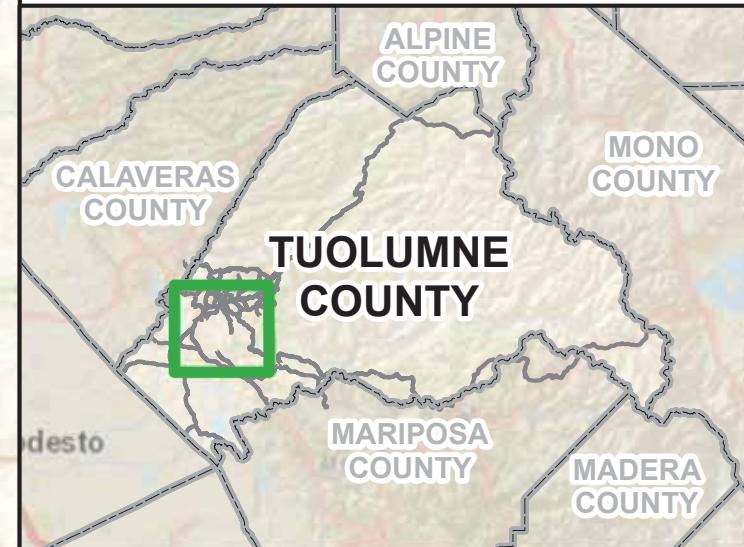
APPENDIX FIGURE 17-B: YEAR 2040
DEFICIENCIES
PUBLIC SERVICES PROPOSED
SOUTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



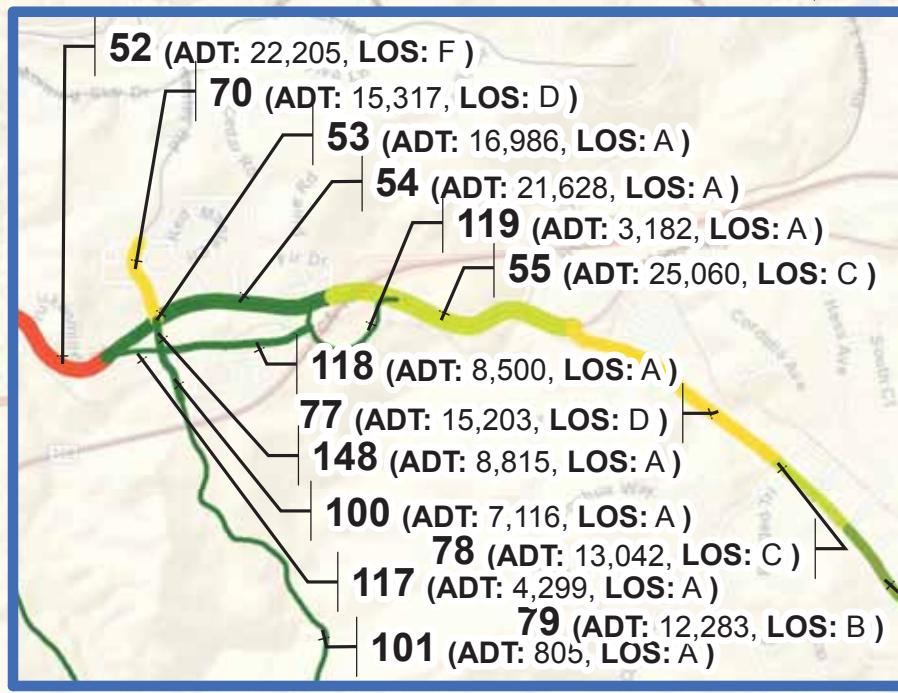
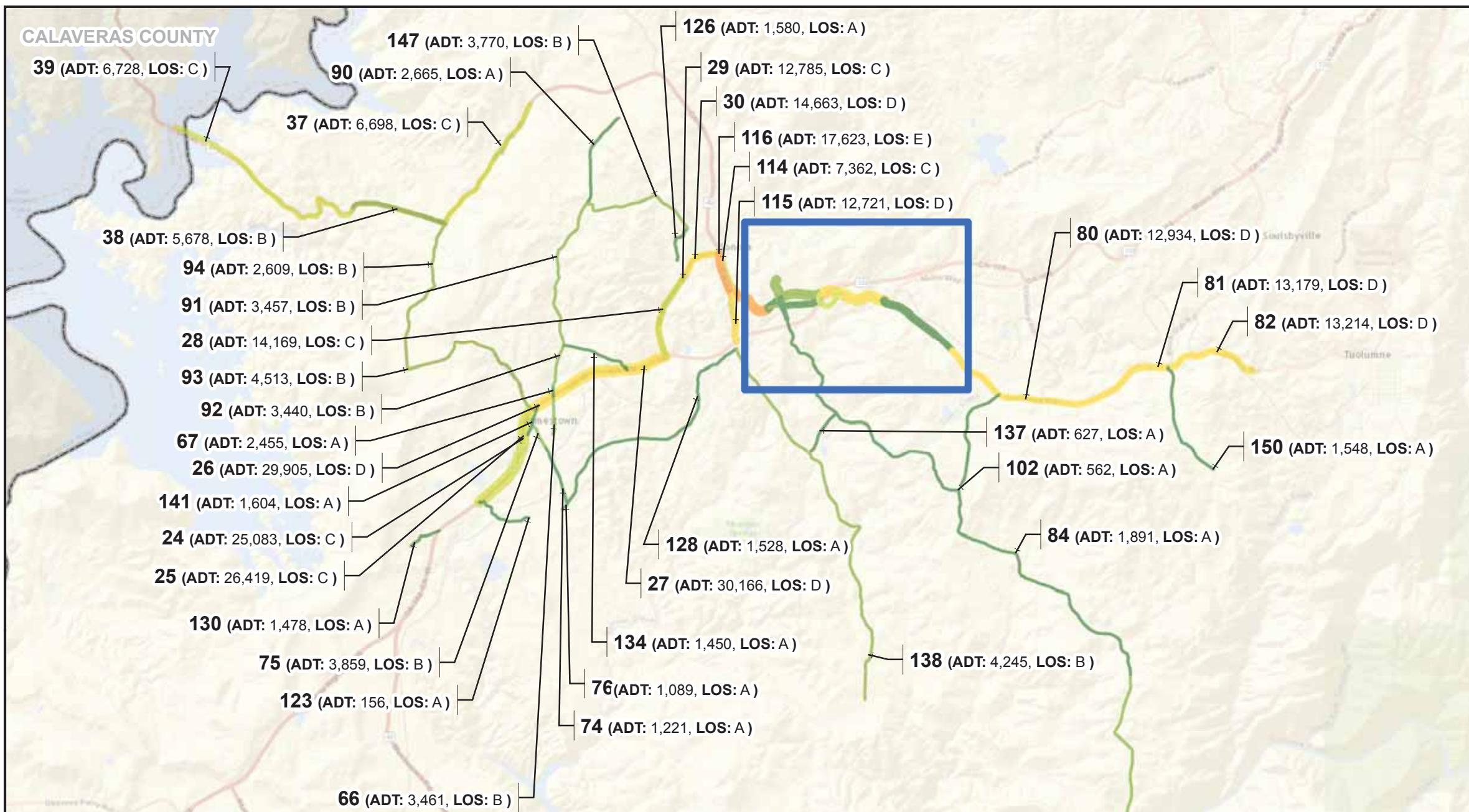
0 3,750 7,500
Feet



LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 17-C: YEAR 2040
DEFICIENCIES
PUBLIC SERVICES PROPOSED
NORTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range

- A
- B
- C
- D
- E
- F

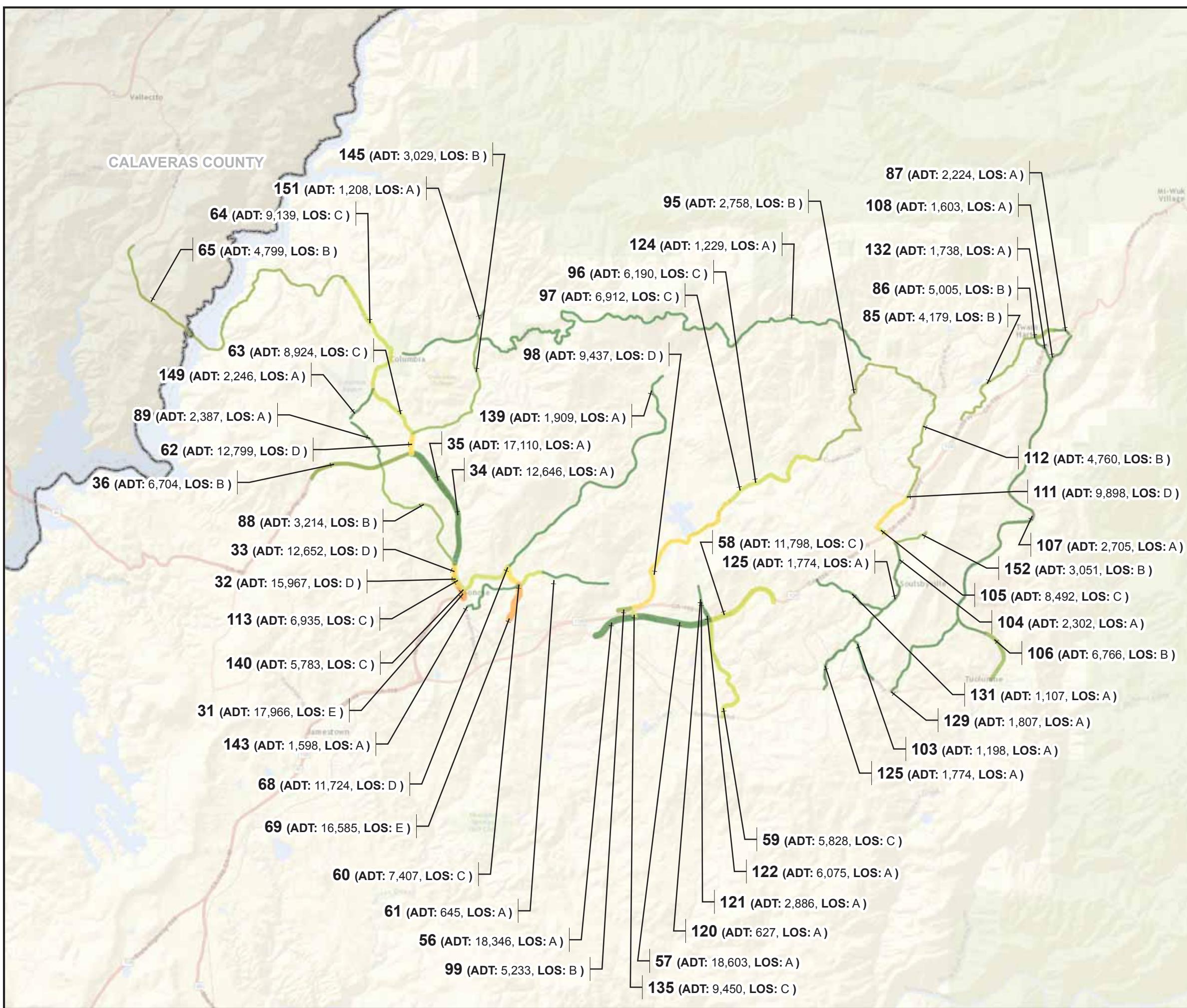
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 17-D: YEAR 2040
DEFICIENCIES
PUBLIC SERVICES PROPOSED
GROVELAND AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 6,250 12,500
Feet

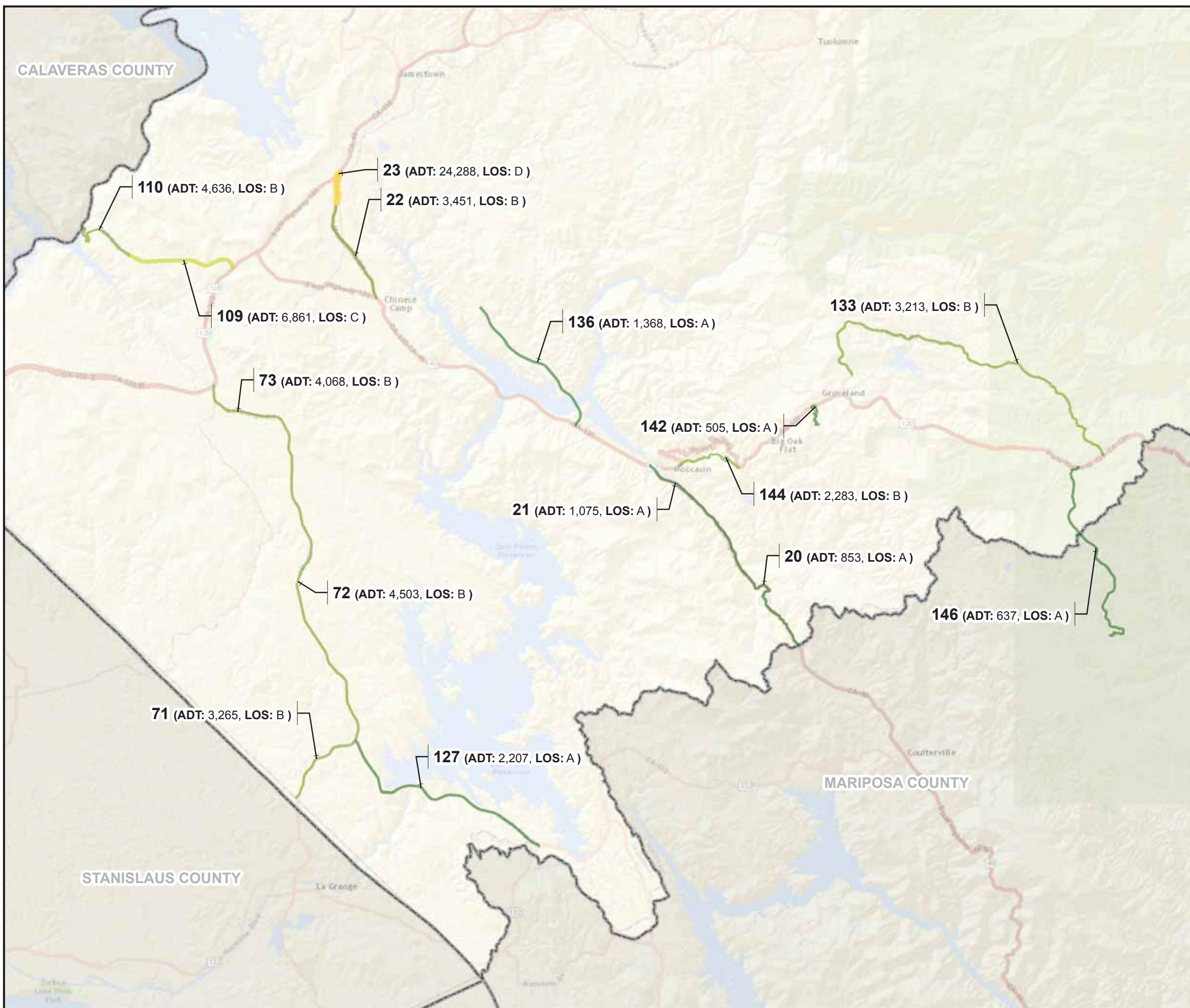
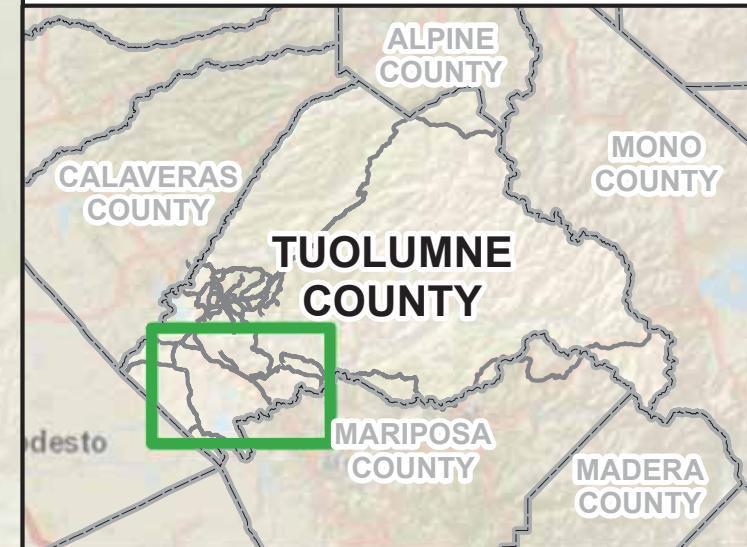
Level of Service - Color Range

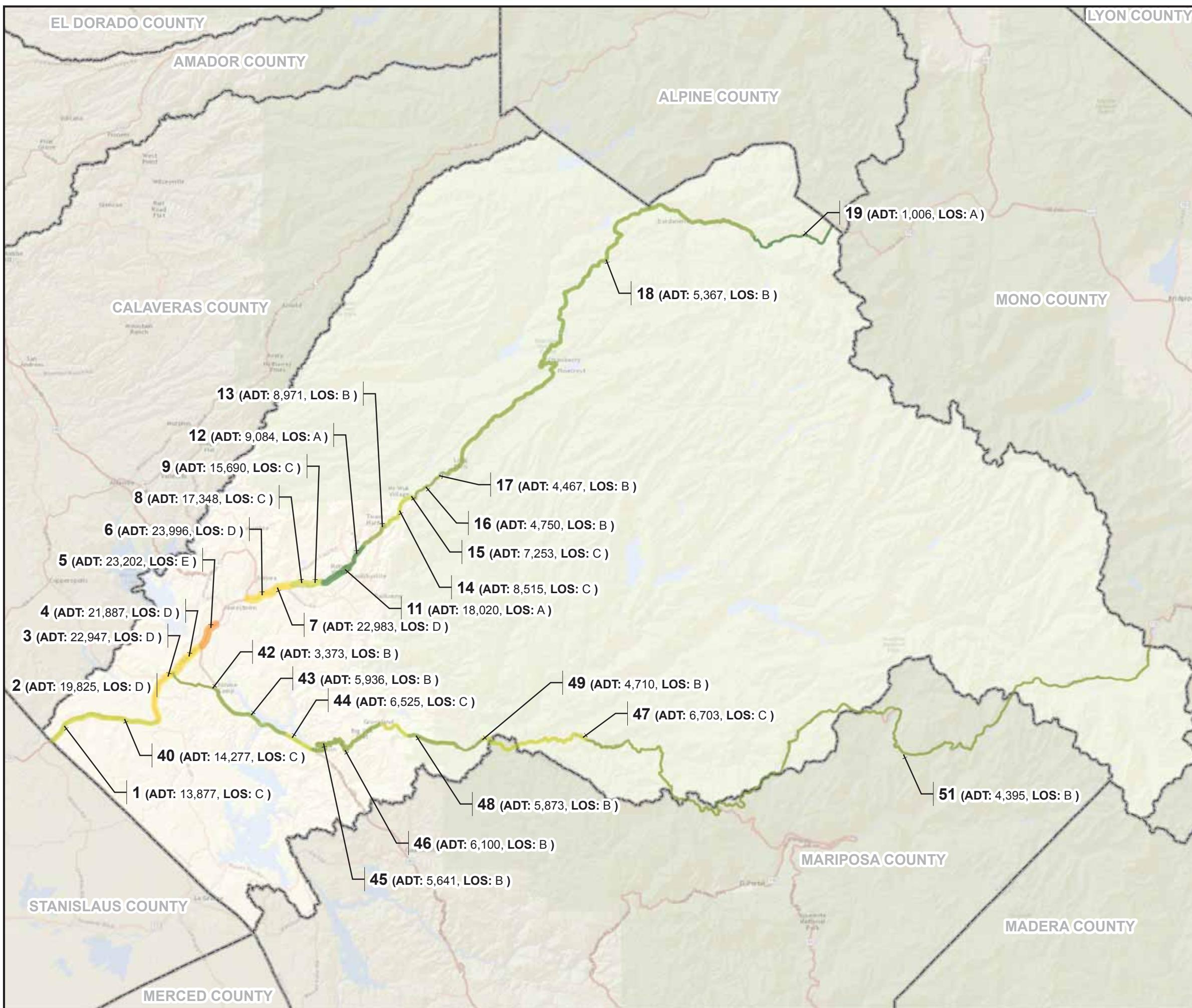
- A
- B
- C
- D
- E
- F

ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP





APPENDIX FIGURE 18-A: YEAR 2040
DEFICIENCIES
RECENT TRENDS EXISTING
SR 108 AND SR 120
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015

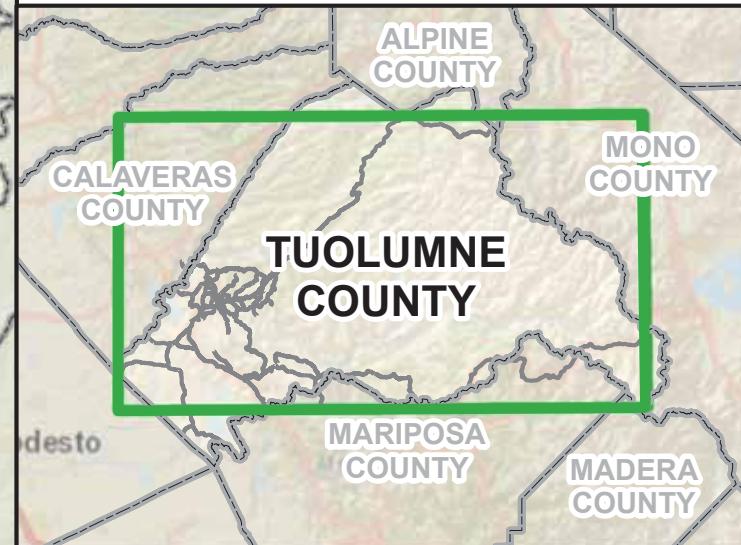


0 17,500 35,000
Feet

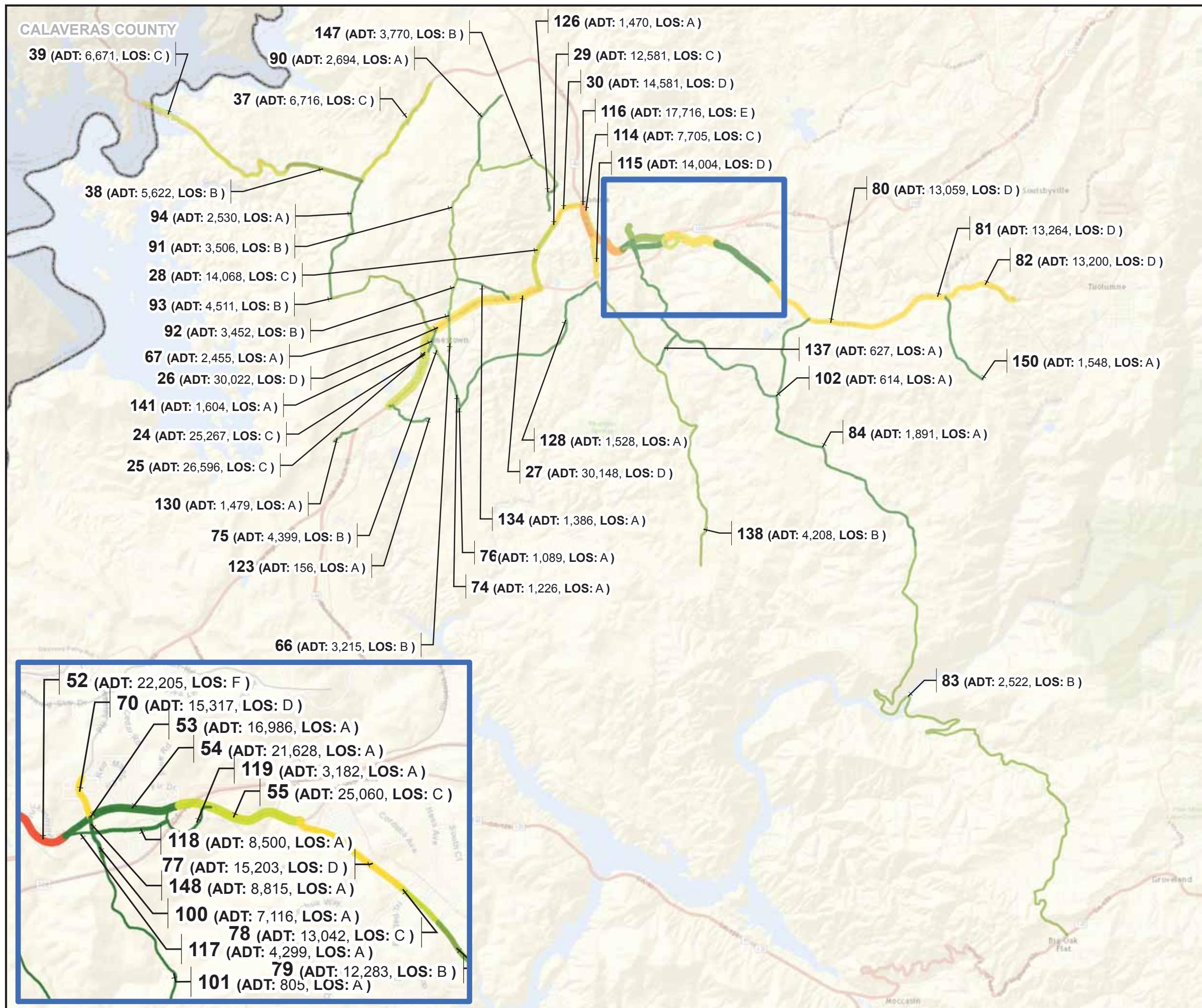
Level of Service - Color Range	
A	Dark Green
B	Medium Green
C	Light Green
D	Yellow
E	Orange
F	Red

ADT Values - Proportional	
0 - 5,000	Lightest Gray
5,000 - 10,000	Very Light Gray
10,000 - 15,000	Light Gray
15,000 - 20,000	Medium Gray
20,000 - 25,000	Dark Gray
25,000+	Black

LOCATION MAP



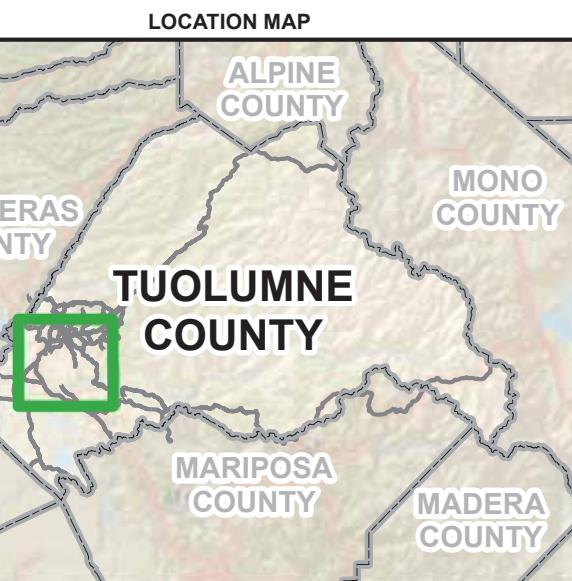
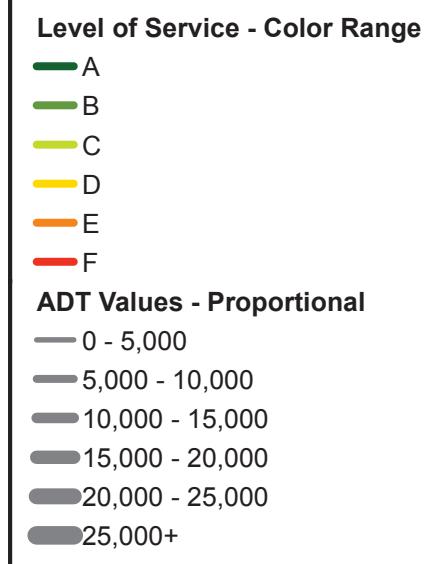
WOOD RODGERS



APPENDIX FIGURE 18-B: YEAR 2040
DEFICIENCIES
RECENT TRENDS EXISTING
SOUTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet



WOOD RODGERS

APPENDIX FIGURE 18-C: YEAR 2040
DEFICIENCIES
RECENT TRENDS EXISTING
NORTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range

- A
- B
- C
- D
- E
- F

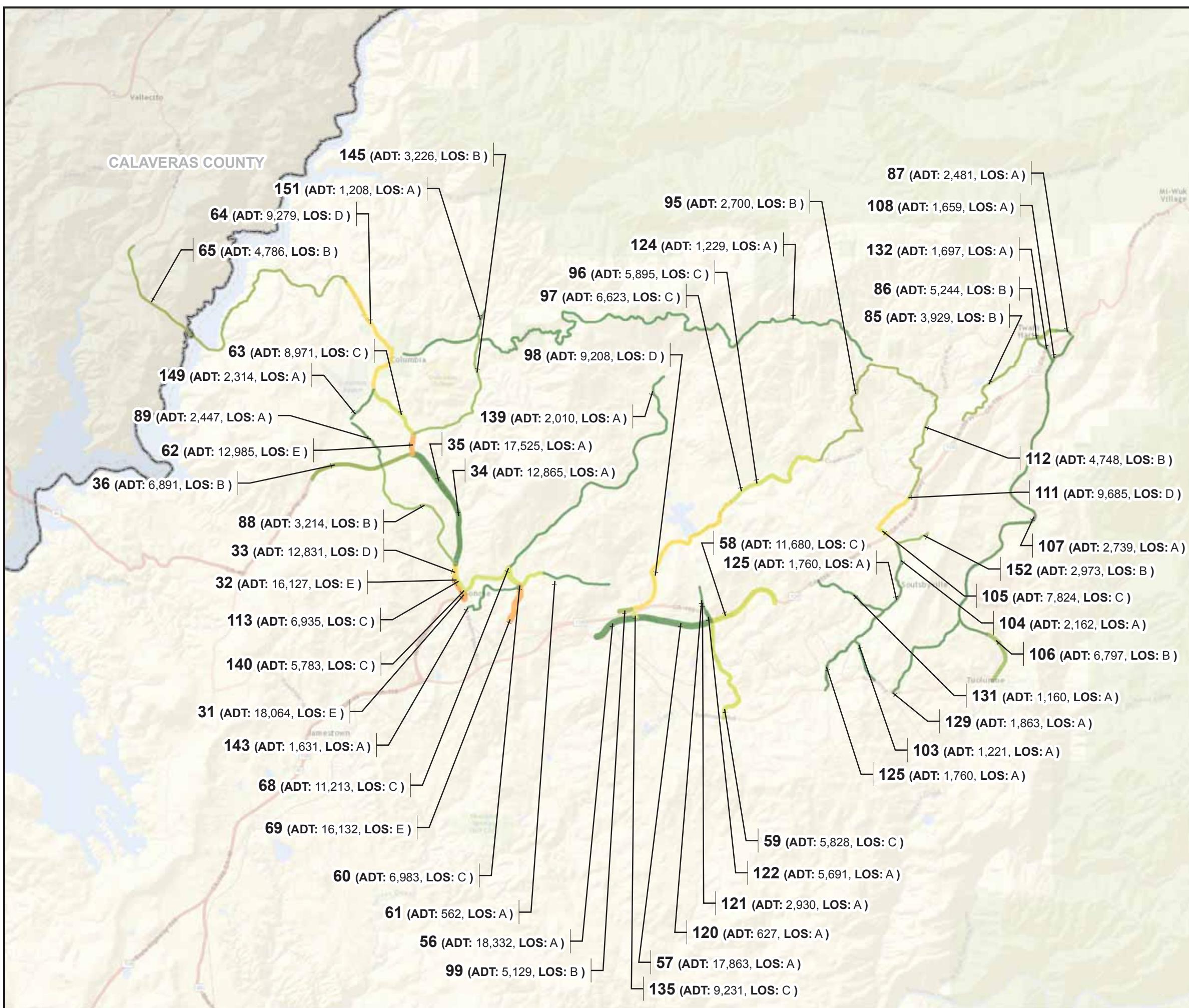
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 18-D: YEAR 2040
 DEFICIENCIES
 RECENT TRENDS EXISTING
 GROVELAND AREA
 TUOLUMNE COUNTY EIR TRAFFIC STUDY
 TUOLUMNE COUNTY, CA
 AUGUST 2015



0 6,250 12,500
Feet

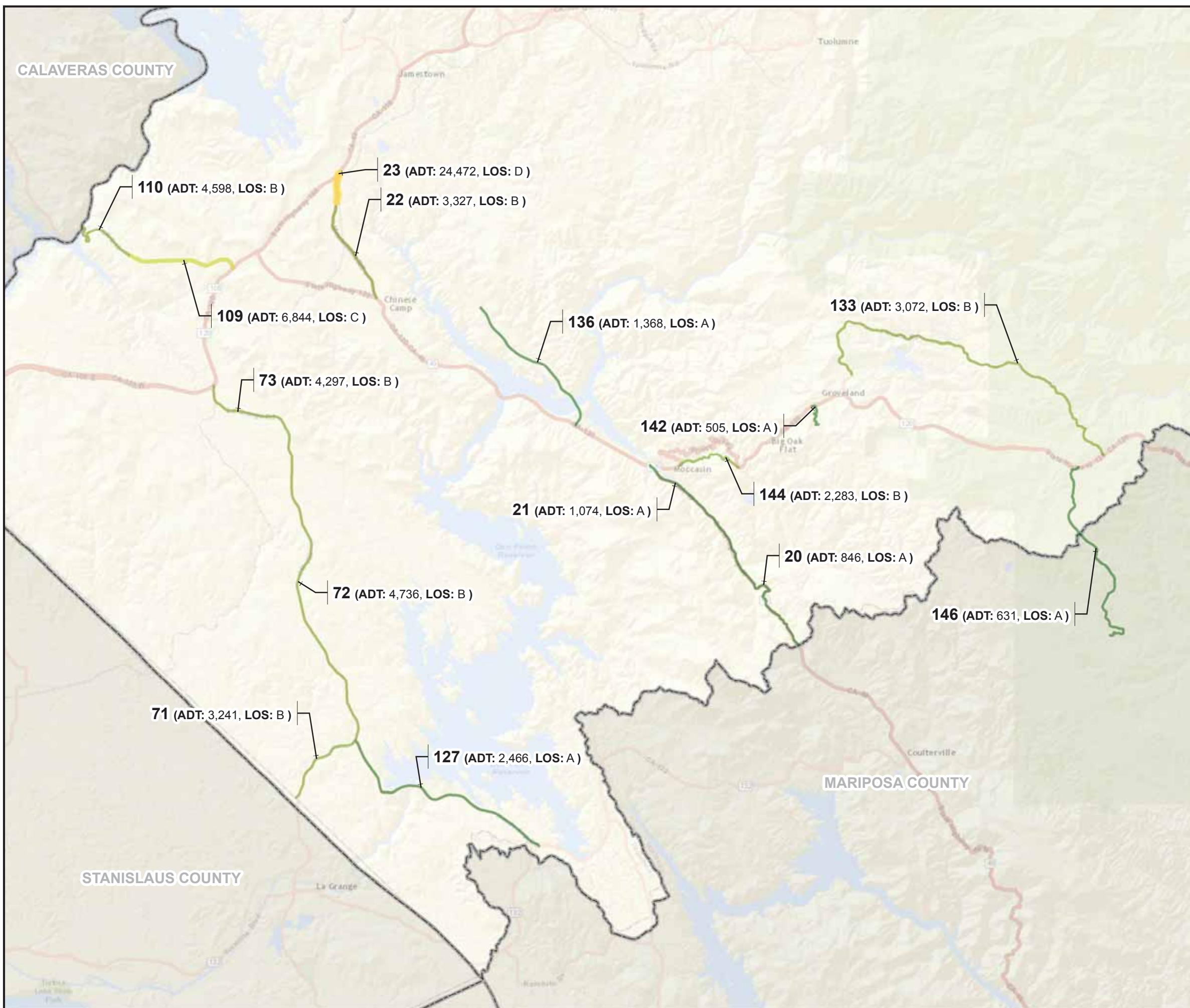
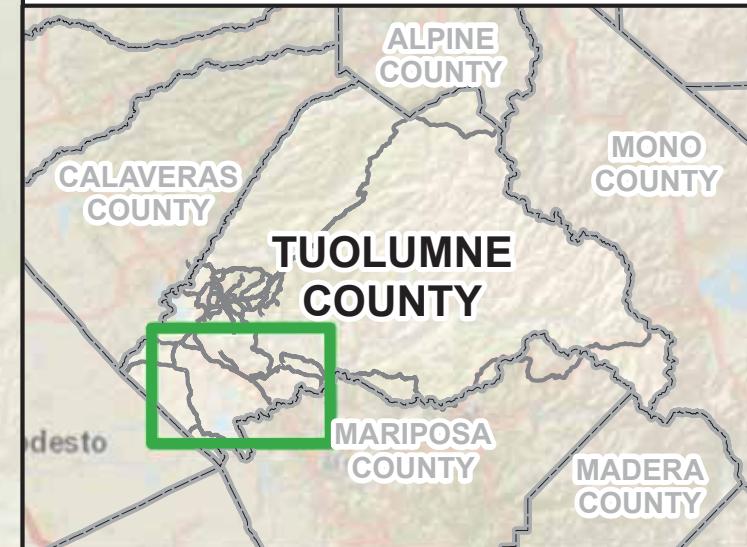
Level of Service - Color Range

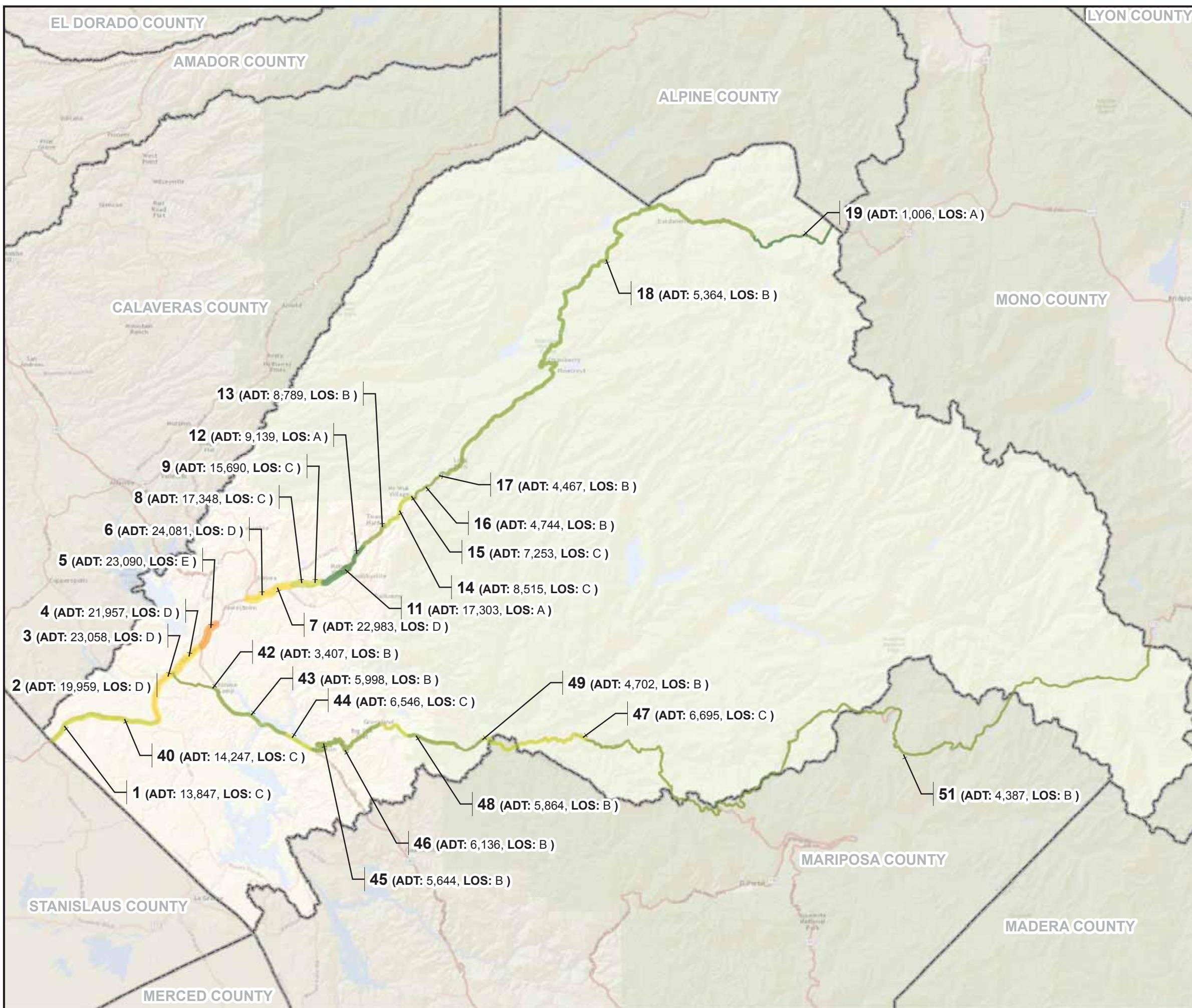
- A
- B
- C
- D
- E
- F

ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP





APPENDIX FIGURE 19-A: YEAR 2040
DEFICIENCIES
RECENT TRENDS PROPOSED
SR 108 AND SR 120
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015

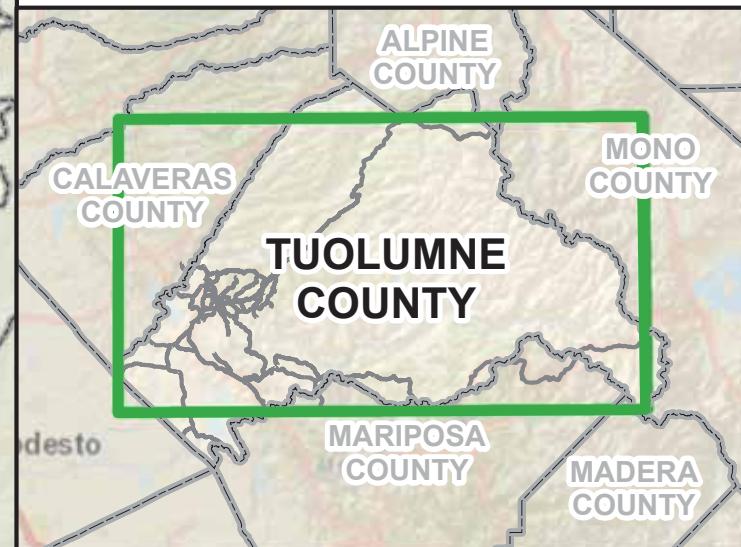


0 17,500 35,000
Feet

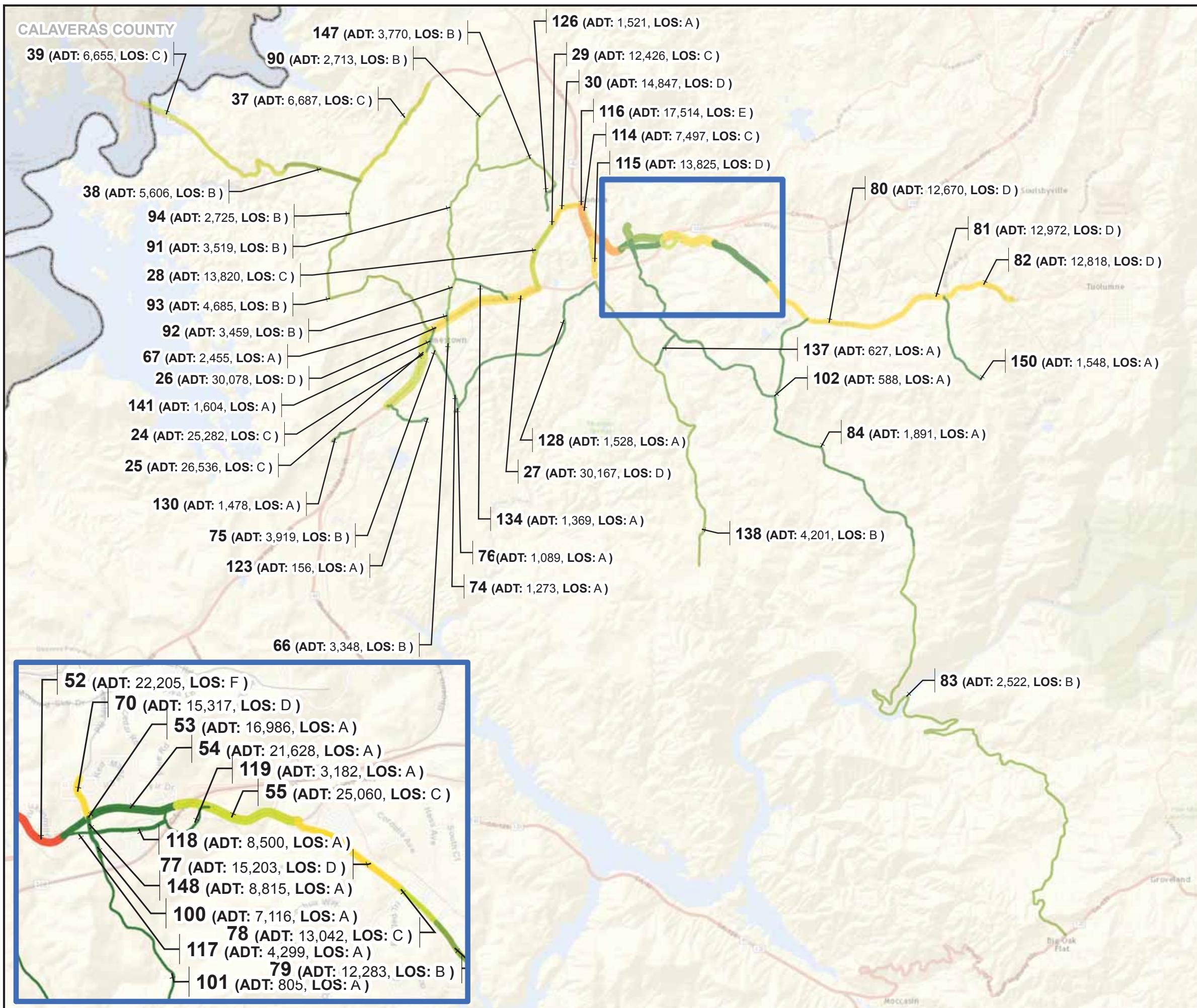
Level of Service - Color Range	
A	Dark Green
B	Medium Green
C	Light Green
D	Yellow
E	Orange
F	Red

ADT Values - Proportional	
0 - 5,000	Lightest Gray
5,000 - 10,000	Very Light Gray
10,000 - 15,000	Light Gray
15,000 - 20,000	Medium Gray
20,000 - 25,000	Dark Gray
25,000+	Black

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 19-B: YEAR 2040
DEFICIENCIES
RECENT TRENDS PROPOSED
SOUTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

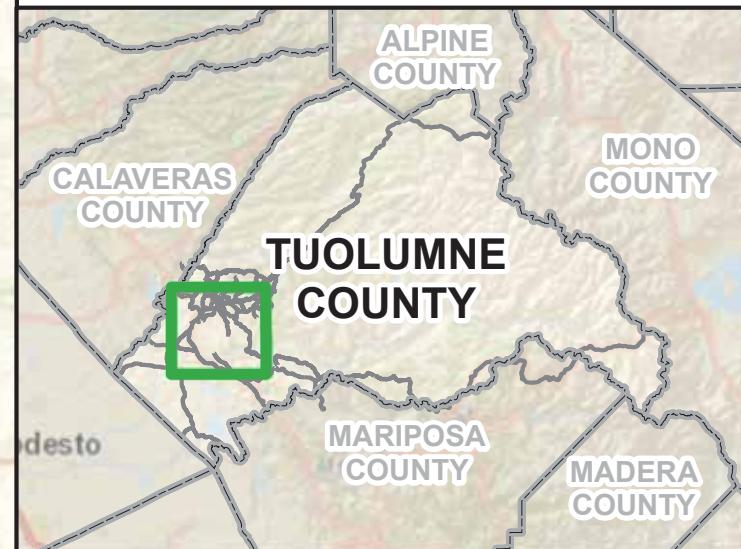
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



APPENDIX FIGURE 19-C: YEAR 2040
DEFICIENCIES
RECENT TRENDS PROPOSED
NORTHERN SONORA AREA
TUOLUMNE COUNTY EIR TRAFFIC STUDY
TUOLUMNE COUNTY, CA
AUGUST 2015



0 3,750 7,500
Feet

Level of Service - Color Range

- A
- B
- C
- D
- E
- F

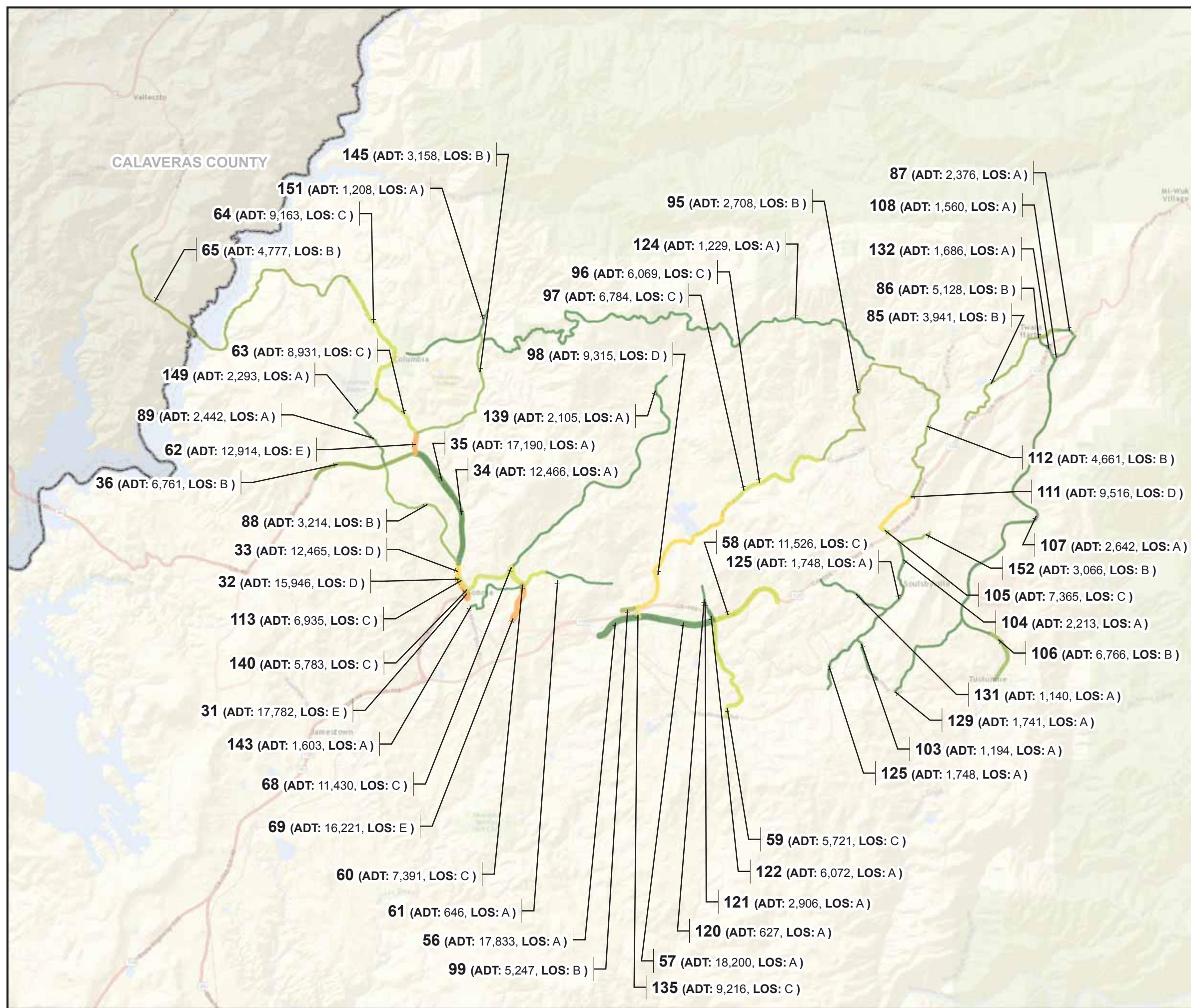
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

LOCATION MAP



WOOD RODGERS



APPENDIX FIGURE 19-D: YEAR 2040
 DEFICIENCIES
 RECENT TRENDS PROPOSED
 GROVELAND AREA
 TUOLUMNE COUNTY EIR TRAFFIC STUDY
 TUOLUMNE COUNTY, CA
 AUGUST 2015



0 6,250 12,500
Feet

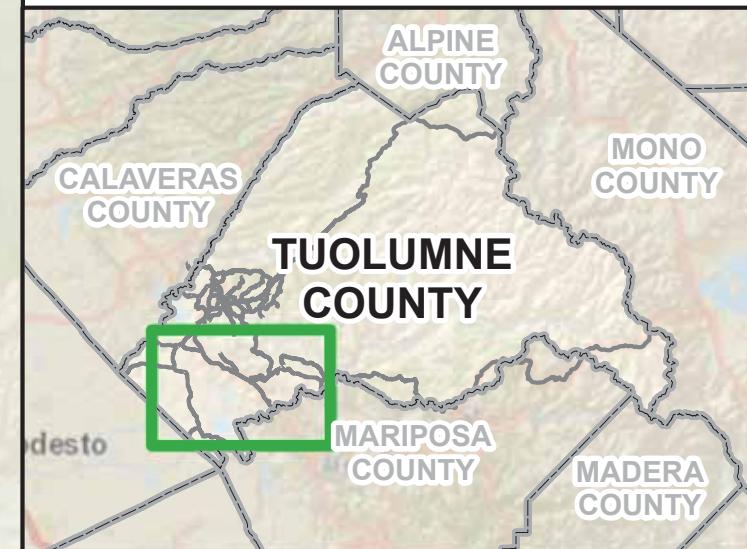
Level of Service - Color Range

- A
- B
- C
- D
- E
- F

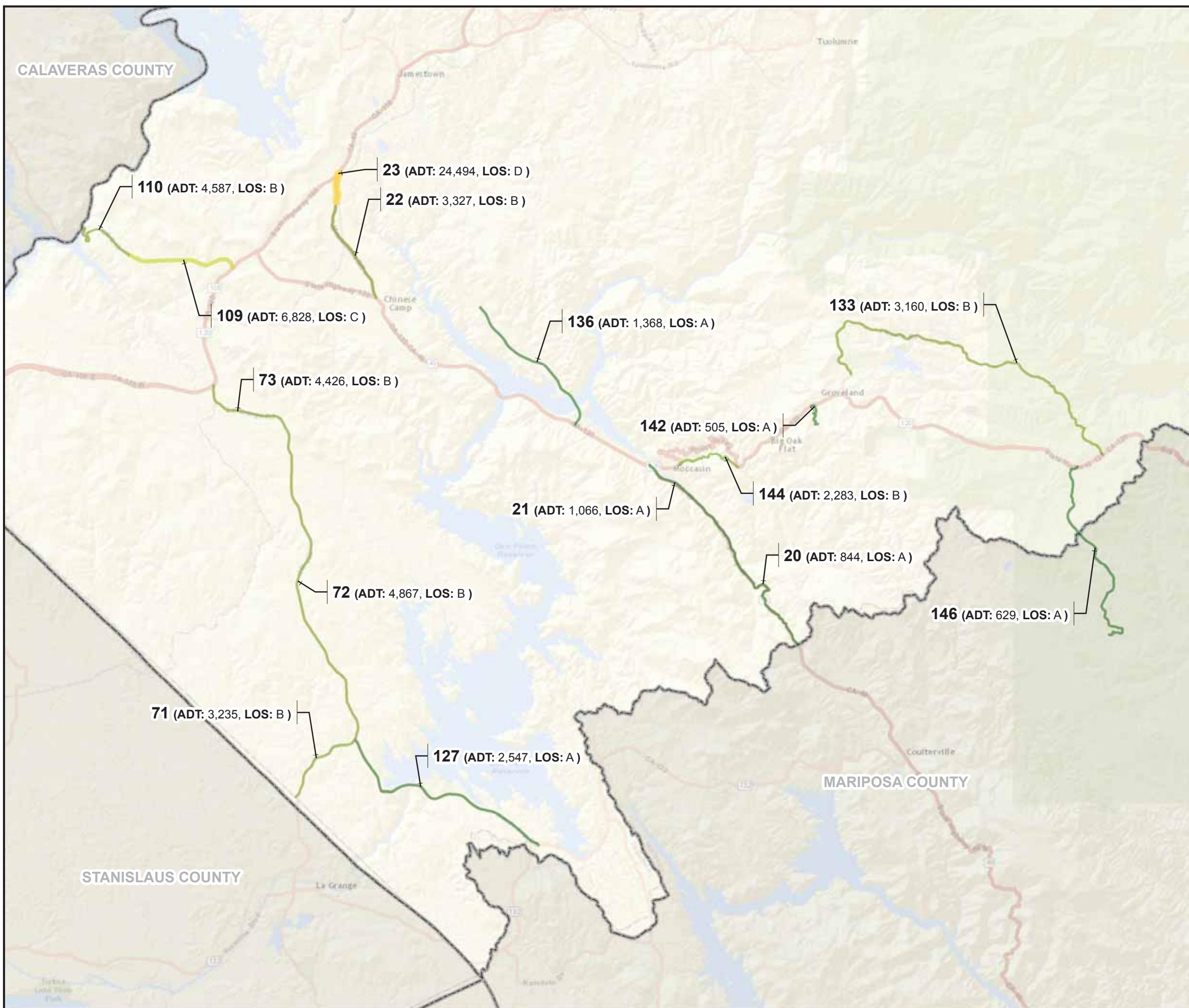
ADT Values - Proportional

- 0 - 5,000
- 5,000 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- 25,000+

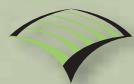
LOCATION MAP



WOOD RODGERS



APPENDIX ATTACHMENTS (UNDER SEPARATE COVER)



WOOD RODGERS
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